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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
HARRISBURG, PA.

Pennsylvania's

TUBERCULOSIS CONTROL MANUAL

Prepared By:

Division of Chronic Respiratory Diseases

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PENNSYLVANIA'S TUBERCULOSIS CONTROL MANUAL

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I. INTRODUCTION

This manual represents the official policy of the Division of Chronic Respiratory Diseases and is intended to serve as a guide for management of tuberculosis patients, contacts and suspects. It supersedes the present tuberculosis manual dated April, 1965, as well as all other previous letters and instructions issued by this Division.

The responsibility for the control of tuberculosis in Pennsylvania has shifted from the tuberculosis hospitals to the out-patient diagnostic and treatment facility. This is reflected by the fact that during 1966, 1,946 patients received chemotherapy in the State tuberculosis hospitals while 4,778 were receiving chemotherapy under clinic supervision. Due to the chronic nature of the disease and the need for long-term treatment and follow-up, all patients must ultimately receive the major portion of their care as out-patients. With current concepts of the control and therapy of tuberculosis constantly dictating shorter periods of hospitalization, the role of the clinic in the control of the disease will continue to increase.

The principle functions of the tuberculosis clinics include:

1. diagnostic evaluation of persons suspected of having tuberculosis;
2. medical and public health supervision of persons with tuberculosis and their contacts;
3. facilities for the admission of patients to State tuberculosis hospitals;
4. chemotherapy for tuberculosis patients following hospitalization;
5. chemoprophylaxis for individuals considered at high risk of developing active tuberculosis;
6. consultation to private physicians in the diagnosis and treatment of tuberculosis patients and in the epidemiological aspects of the disease;
7. consultation and guidance to local voluntary health agencies;
8. consultation and guidance to school physicians and others interested in local public health aspects of tuberculosis.

II. TUBERCULOSIS CONTROL PERSONNEL

The clinician assisted by other tuberculosis control personnel is responsible for the medical management of all individuals admitted to State tuberculosis clinics. He personally directs the diagnostic evaluation and treatment of clinic patients.

Although individual patient care is of great importance, tuberculosis control activities must, of necessity, reach beyond the individual to deal with the broader public health aspects of the disease. The public health implications of tuberculosis are the particular concern of public health nurses and other personnel as assigned by the Division of Chronic Respiratory Diseases. It is their duty to provide counseling and support to patients and their families with particular emphasis on maintenance of drug regimens and clinic attendance. They also are charged with the responsibility for any necessary epidemiologic investigations. In general, they perform whatever services are deemed necessary to assist the clinician and to provide the community with high-level public health care.

In selected high incidence areas of the Commonwealth, tuberculosis program coordinators have been assigned. Their functions are to aid in strengthening of the tuberculosis control program and to implement any new procedures developed by the Division staff. They are assigned to the respective regional offices and work directly with local clinics in the region. Their responsibilities also include the coordination of activities of all official and voluntary agencies involved in tuberculosis control programs.

The tuberculosis case register clerk is responsible for maintenance of current medical and public health information on all diagnosed patients residing in the area who are classified as active or whose disease has been inactive for less than five years. In addition, the case register clerk is responsible for maintaining a contact control record for each diagnosed case and any other pertinent data as designated by the tuberculosis coordinator. More detailed information on the duties of the register clerk and the functions of the case register will be found in the Manual on Case Registers which will be supplied upon request by the Division of Chronic Respiratory Diseases.

III. CLINIC POLICIES AND PROCEDURES

A. Sources of Patients

Any individual, upon request, may receive services at a State tuberculosis clinic. All clinic services, regardless of the source of referral, are rendered without cost to the patient. Referrals are usually made by private physicians, hospitals or as a result of investigations conducted by official or voluntary health agencies.

When patients are referred to the clinic by other than Health Department sources, the clinician should submit to the source of referral a report of his findings and disposition of the case on Form HTC-4461, Tuberculosis Information Interchange. To assure continuity of medical care each clinic patient's private physician must be informed of the status of the patient's disease and his current chemotherapeutic regimen. This information is conveyed to the private physician following the initial evaluation, with hospitalization, with any change in diagnosis or with any change in chemotherapeutic regimen. Form HTC-4461 is to be used for this purpose. In clinics served by an area case register, the register clerk is responsible for completing this form and seeing that it is reviewed and signed by the clinician. In clinics not served by an area case register, the completion of this form is the responsibility of the public health nurse or clinic clerk. Directions for completing this form are found in Appendix 3.

B. Schedules and Appointments

All State tuberculosis clinics operate on a regular schedule established by the Division of Chronic Respiratory Diseases. Requests for changes of clinic schedules should be submitted through the regional medical director to the Division of Chronic Respiratory Diseases for approval.

A copy of the current clinic schedules is attached in Appendix 4. As revised schedules are received, they should be inserted in place of the old one.

The appointment system will be used, insofar as possible, for scheduling clinic patient visits.

C. Hospitalization of Clinic Patients

It is recommended that all newly diagnosed active cases of tuberculosis be hospitalized for their initial phase of treatment. Further indications for and advantages of hospitalization are listed in Section V. The procedure for hospitalization of clinic patients is also listed in this section.

D. Patients Discharged From Clinic

When a patient is discharged from clinic supervision to be followed by another agency or a private physician within Pennsylvania, it is the duty of the clinician to see that the following action is taken:

1. The name and address of the agency to whom the patient is discharged is recorded on the patient's chart.
2. A summary of the patient's medical history is sent to the new supervising agency.

When a patient is transferred from one Pennsylvania State tuberculosis clinic to another Pennsylvania State tuberculosis clinic, the patient's chart in its entirety as well as all chest X-rays also will be transferred. An index card Form HTC-4424 with the medical summary on the reverse side will be completed and retained by the clinic from which the patient was transferred.

If a patient is discharged to an out-of-state agency or physician, a summary of the patient's clinic record will be sent to the Division of Chronic Respiratory Diseases for forwarding to the proper person or agency.

For patients discharged with a diagnosis of active, quiescent, or inactive less than 18 months, the following procedure will be followed:

> Four weeks following discharge from the clinic, an inquiry should be made either by telephone or letter to the physician or agency supervising the patient to insure that the patient has reported as directed. If the patient has failed to keep his appointment, a visit will be made by a Public Health Nurse to determine when he expects to report. A patient is not to be removed from the active clinic roster until there is confirmation that he is under medical supervision and that the source of his supervision is aware of the diagnosis of tuberculosis. It then becomes the responsibility of the physician supervising the case to see that the public health aspects of the disease are properly managed. Clinic personnel will provide assistance in this management if requested to do so by the private physician.

IV. CLINIC SERVICES

A. Diagnostic

Individuals are referred to a tuberculosis clinic for diagnostic evaluation because they have one or more findings which have led to the suspicion that they may have tuberculosis, or because they are a contact of a diagnosed case of tuberculosis. Thus, it should be realized that this evaluation is a *definitive procedure* designed to *either diagnose tuberculosis or to exclude it from consideration* and also to determine if any form of therapy or prophylaxis is indicated. The diagnostic tools available at the clinic level include a history and physical examination, the tuberculin skin test, chest X-ray and sputum examination. The latter three are discussed in some detail below. Other studies which are beyond the capability of the clinic but which may be needed in difficult cases include specialized procedures such as planigraphy, bronchography, bronchoscopy, pulmonary function studies, lymph node biopsy, pleural biopsy and lung biopsy. When indicated, arrangements for the performance of these studies can be made by submitting a request to the Division of Chronic Respiratory Diseases.

1. Tuberculin Test

The tuberculin test using the Mantoux method should be performed on all new clinic entrants except those who have a previously proven diagnosis of tuberculosis or a previously documented positive Mantoux test. The test material used is purified protein derivative (P.P.D.). For diagnostic evaluation the intermediate test strength (0.0001 mg or 5 TU) is to be used. Second test strength (0.005 mg or 250 TU) is to be used only when ordered by the clinician. It should be remembered, however, that a positive second strength test following a negative intermediate strength test most frequently indicates infection with an organism other than M. tuberculosis and may be misleading. The Mantoux test is performed with a sterile 25 or 26 ga. needle and a tuberculin syringe. The volume of solution injected is 0.1cc. The injection is made intradermally into the cleansed volar surface of the forearm with only the bevel of the needle under the skin surface. Care should be taken not to inject in a site previously tested. When properly done, the immediate result should be a pale elevation of the skin 6 to 10 mm. in diameter. The Mantoux test should be read 48 to 72 hours after injection. The readings are based on the greatest diameter of induration and are recorded in millimeters. The surrounding erythema is not to be included in the reading. A reading of 6 millimeters or larger for an intermediate strength test is considered positive. However, results should always be recorded in millimeters of induration and not as "positive" or "negative." It has been shown that persons tested with intermediate P.P.D. and having reaction sizes of greater than 10 millimeters are more likely to have been infected by M. tuberculosis and thus should be accorded a higher priority for further evaluation. The size of the induration should be recorded on Form HTC-4460 "Record of Tuberculin Sensitivity" which serves as a permanent record of all tuberculin tests performed on any individual.

Studies have shown that from 0.32 percent to 4.0 percent of otherwise healthy patients with bacteriologically proven tuberculosis have negative skin tests. The skin test also may be negative in patients with systemic diseases affecting the immunologic system, in patients with any overwhelming disease including tuberculosis, in persons with various exanthematous diseases (e.g. measles), in elderly persons, and in persons receiving systemic steroid or other immunosuppressive therapy. There is also a 6 to 8 week period of skin-test non-reactivity between infection with the organism and the development of skin hypersensitivity. Thus, a negative tuberculin skin test does not exclude the diagnosis of tuberculosis. Patients having other evidence of tuberculosis or having recent exposure to the disease but who are initially tuberculin negative should be retested in 6 to 8 weeks.

2. Chest X-ray

The chest roentgenogram plays a major role in the diagnostic evaluation of any chest disease. It is particularly valuable in detecting lesions which produce neither symptoms nor physical findings. The X-ray examination serves as the second step in the evaluation of persons suspected of having tuberculosis. All new clinic patients who have a positive tuberculin reaction should have a postero-anterior chest film soon after being admitted to the clinic. This examination reveals about 75 per cent of the lung fields and in most instances is adequate. If, however, after review of the P-A film, further views are deemed necessary, lateral and apical lordotic views may be ordered without special permission from the Division. The lateral view is especially useful in visualizing the lymph node enlargement commonly present in primary tuberculosis.

A chest X-ray suggestive of active tuberculosis is considered enough evidence to warrant request for hospitalization at a State tuberculosis hospital. All films should be evaluated by the clinician as well as the radiologist. A notation of both interpretations should be recorded on the patient's chart. A file of the patient's X-rays should be available at each clinic to allow comparison of films.

Radiation hazards, while quite small, should not be forgotten. This should be kept in mind when ordering films on pregnant females and patients under 18 years of age. It has been recommended that total exposure from time of conception to age 30 be limited to 10 roentgens (r) above natural radiation. A conventional 14" x 17" chest X-ray produces an exposure of 0.0025 (r).

3. Sputum Examination

The demonstration of acid-fast bacilli typical of Mycobacterium tuberculosis is usually sufficient to establish the diagnosis of active tuberculosis. Routine sputum examination consists of a stained smear of concentrated sputum, culture of the specimen on artificial medium, and niacin test to differentiate M. tuberculosis from atypical acid-fast organisms. Further studies such as drug susceptibility tests are available at the Department of Health Laboratory and will be performed when requested on the laboratory requisition slip accompanying each specimen.

All patients with clinical or X-ray evidence of active tuberculosis should have a sputum examination. This examination is performed on a series of three consecutive early morning specimens collected Sunday, Monday and Tuesday and mailed on the day of collection. An equally acceptable means of sputum collection is to obtain an early specimen each Monday for three consecutive weeks. The specimens are sent to the Department of Health Laboratory in special containers provided by the clinics. The diagnosis of active tuberculosis should not be excluded until three series of three specimens have been reported as negative. If X-ray changes compatible with active tuberculosis still exist, the patient should be hospitalized for further evaluation and definite diagnosis. All initial sputum specimens should be accompanied by a request for sensitivity studies for the primary drugs (INH, PAS, and streptomycin). These studies should be repeated at no less than six-month intervals for patients on these drugs who have persistently or intermittently positive sputum.

Steam inhalation nebulizers to induce sputum production are available at selected clinics. These nebulizers are to be operated only by clinic personnel instructed in their use and in the procedures needed to prevent contamination.

Gastric washings as performed on out-patients are generally unreliable and should be avoided except in special circumstances. If a gastric washing is considered necessary the procedure outlined below is to be followed:

> The patient should have nothing by mouth for eight hours and the specimen collected early in the morning before the patient arises. A carefully cleansed and sterilized levine tube is introduced and 20 to 50 cc. sterile glass syringe used to aspirate the gastric contents. Twenty to 50 cc. of sterile water are then introduced into the stomach via the tube and aspiration is again performed. The specimen, if it is to be mailed, should either be immediately frozen and shipped with dry ice or neutralized with disodium acid phosphate. If it is not to be mailed, it should be taken directly to the laboratory. Smears of gastric lavages are not reliable as the specimen may be contaminated by other acid-fast organisms frequently present in the mouth.

B. Treatment

As previously mentioned most patients with tuberculosis, following initial hospitalization, receive the major portion of their medical care under clinic supervision. The main objective of out-patient care is to maintain the patient's sputum free of tubercle bacilli and to prevent progression of the disease while at the same time allowing him to remain at home. To accomplish this, patients require long periods of adequate uninterrupted chemotherapy and close medical supervision.

1. Medical Supervision

The following is a brief guide for the medical supervision of tuberculosis out-patients:

a. *Active patients with positive sputum*

Except in rare instances these patients should be hospitalized. The advantage of hospitalization and hospital services are discussed in Section V. When a patient with positive sputum is carried on out-patient rolls, he must be seen by the clinician at least every two weeks and have X-ray and sputum examinations every month.

If the patient is infected with organisms which are susceptible to primary drugs he should be receiving these in adequate amounts. (See Section IV, B, Part 2-a "Treatment Regimen"). Patients with positive sputum whose organisms are resistant to more than one primary drug are *not* to be treated as out-patients. These patients should be continued on INH and scheduled for admission to a State tuberculosis hospital.

b. *Active patients with negative sputum*

These patients have converted their sputum but have not yet met the criteria of the inactive classification. This group needs to be continued on an adequate chemotherapeutic regimen. These patients must be seen monthly by the clinician and have monthly X-rays and sputum examinations.

c. *Quiescent less than 18 months*

Patients in this category should be seen by the clinician at intervals of two months and have X-ray and sputum examinations at these intervals. They must be maintained on chemotherapy.

d. *Quiescent more than 18 months*

These patients are to be seen by the clinician at three month intervals with X-ray and sputum examinations at four to six month intervals and should be continued on INH as long as they have cavitation.

e. *Inactive 0 – 18 months*

This group should be maintained on chemotherapy and be seen by the clinician every three months with X-ray and sputum examinations at these intervals.

f. *Inactive 18 – 60 months*

If on drugs, they should be seen by clinician every three months. If not on drugs, patients should be seen at six month intervals with X-ray and sputum examinations at these intervals.

g. *Inactive more than 60 months*

These patients may be discharged from clinic supervision but should have yearly chest films either in the clinic or by a private physician. If they are continued on drugs they should be seen by the clinician at three month intervals.

h. *Primary active*

It is necessary that these patients be seen by the clinician at least monthly. Hospitalization is necessary if any complication (e.g. atelectasis, progressive primary disease, extra-pulmonary dissemination) arises. Monthly X-ray examinations should be performed. In older children, where it is possible to obtain sputum, monthly bacteriologic examinations should be done. In younger children, clinical judgement should be exercised in deciding if gastric washings are necessary (See Section IV, A, Part 3 "Sputum Examination").

i. *Primary inactive*

These patients should have a chest film with the initial examination at six months and annually thereafter. If skin test reaction is greater than 10 mm. and no previous therapy has been administered, INH prophylaxis should be given for one year. (See Section IV, B, Part 3 "Chemoprophylaxis").

j. *Tuberculin test converter* (A person who is known to have changed from skin-test negative to positive within one year)

They should be on INH for one year with X-ray examination initially, at six months and then yearly. (See Section IV, B, Part 3 "Chemoprophylaxis").

k. *Extra Pulmonary*

Supervision is as indicated by the site and severity of the disease.

All patients in any category who are taking medication must be seen by the clinician at least every three months.

2. Chemotherapy

Chemotherapy for patients with tuberculosis is the single most important factor in the control of the disease. The out-patient chemotherapy program applies to patients who have been discharged from a tuberculosis hospital and to other selected cases who are suitable for this type of management. The objectives of this program are as follows:

(1) Coordination of hospital and clinic treatment.

(2) Reduction in the length of hospitalization.

(3) Prevention of relapses through continuity of adequate treatment.

(4) Protection to the public health of the community against the spread of tuberculosis.

a. *Treatment Regimen*

The treatment regimen for individual cases shall be in accordance with the recommendations of the medical staff of the hospital from which the patient has been discharged. Treatment in State tuberculosis clinics is ordinarily limited to the three primary drugs; INH, PAS and streptomycin. Patients who, based on hospital evaluation, require treatment with drugs other than these three must be referred to specialized secondary drug clinics which will be established in each region. These clinics have the facilities to perform the various laboratory procedures needed to follow patients taking secondary drugs. A list of these clinics is found in Appendix 5.

To prevent the emergence of bacterial resistance and for greatest effectiveness in halting the progression of the disease, at least two drugs should be administered. Any combination of two or more of the three primary drugs to which the patient's organisms are susceptible and which the patient tolerates is approved for clinic use.

A tabular summary of all currently used antituberculosis drugs is found in Appendix 2.

b. *Duration of Treatment*

Drug therapy should be continued uninterruptedly for a minimum of 18 to 24 months following bacteriologic conversion. In patients with complicating factors, such as pneumoconiosis, sarcoidosis, diabetes, extensive residual fibrosis, quiescent cavitary disease, etc., it is recommended that INH be continued indefinitely.

Children with uncomplicated primary disease need only one year of chemotherapy. If the disease has been complicated, therapy should be continued for a total of 18 months or 6 months after apparent cure of all complications.

c. *Therapy of Anaphylaxis*

Anaphylactic reactions, while rare, can occur particularly with the parenteral administration of medication. All patients should be questioned regarding previous drug reactions with particular emphasis upon the specific drug to be administered. If such a reaction occurs the treatment to be undertaken is as follows:

(1) Mild symptoms such as pruritis and urticaria can be controlled with epinephrine (adrenalin), 1:1000, 0.5 cc. given subcutaneously.

(2) Acute anaphylactic shock requires immediate epinephrine (1:1000) 0.5 cc. given subcutaneously in an uninvolved extremity and repeated in five minutes if necessary.

(3) Constant attention should be paid to maintenance of a patent airway and normal blood pressure.

(4) A tourniquet may be applied proximal to the area where the offending drug was injected and epinephrine (1:1000 0.2 cc.) may be injected into the reaction site.

(5) Intramuscular diphenhydramine (Benadryl) 50 mg. may be of some value but should not be used in place of epinephrine.

(6) Patients with severe reactions should be hospitalized where equipment is available for intravenous fluids, administration of oxygen, etc.

d. *Clinic Attendance and Administration of Drugs*

Clinic patients receiving chemotherapy must be given appointments to attend the clinic as outlined in the guide for medical supervision. All patients on drugs must be seen by the clinician at least every three months.

Patients who are physically unable to attend the clinic may receive their medication at home from the public health nurse when authorized by the clinician. The following special instructions, which were published April 14, 1964, are repeated here for the guidance of all concerned.

> "During the many years since the out-patient chemotherapy program has been established, almost all patients admitted to the program have been able to attend the clinic to receive oral drugs or streptomycin injections when such treatment has been ordered by the hospital from which the patient was discharged, or by the clinic physician. In the future, it is expected that all clinic physicians and public health nurses will make every effort to continue this program by carrying out the following established procedures:
>
> (1) The dispensing of oral drugs and administration of streptomycin injections, as ordered by the hospital or clinic physician for tuberculosis patients, is the responsibility of the State public health nurses.
>
> (2) All patients, who are physically able, are required to attend either the regularly scheduled State tuberculosis clinics, or specially scheduled clinics, to receive their antituberculosis drugs.
>
> (3) For those patients who are not physically able to attend a regularly scheduled State tuberculosis clinic to receive oral drugs or streptomycin injections, treatment may be administered at the patient's home by a State public health nurse, or a licensed professional nurse, when such procedure is approved by the supervising public health nurse and ordered by clinic physician. The nurse will then make periodic reports to the clinician, as he deems necessary. When oral drugs or streptomycin injections are administered by a licensed professional nurse instead of a State public health nurse, the expense of this service must be borne by the patient rather than by the Commonwealth. The oral drugs or streptomycin may be provided by the local State tuberculosis clinic. The patient should be evaluated as often as feasible based on his condition.
>
> (4) In cases where the patient may find it more desirable to provide for the administration of his medicine and can make arrangements for a member of the Visiting Nurse Association to administer the treatment at the expense of the patient, clinic physicians may approve such arrangements. The drugs administered and the patient's progress will then be reported to the clinician and the patient's record in the same manner as other patients under clinic supervision.
>
> (5) State tuberculosis clinicians may not approve, *at the expense of the Commonwealth,* any requests for treatment to be administered at home by members of the Visiting Nurse Association staff."

e. *Chemotherapy Record*

The clinician should record and sign the order for drugs on the patient's chart Form HTC-4410 "Record of Clinic Visit" at least every three months. The clinic nurse or clerk is to record any change in drug regimens on Form HTC-4464 "Chemotherapy Record."

3. Chemoprophylaxis

Isoniazid chemoprophylaxis is indicated in all groups of people who are considered to be at particularly high risk of developing active tuberculosis. These categories are as follows:

a. All close contacts of active cases

b. Adult persons with reactions of 10 mm. or larger to intermediate strength tuberculin (P.P.D.).

c. Persons with conversion of the tuberculin test from negative to positive within the past year.

d. All tuberculin positive adolescents.

e. Inactive cases of tuberculosis who have never received chemotherapy.

f. Persons with chronic diffuse pulmonary disease, either infiltrative or fibrotic in nature, (e.g. silicosis, sarcoidosis) who have a positive tuberculin test.

g. Persons with a positive tuberculin test who are taking systemic steroids or other immunosuppressive drugs.

h. Diabetics with a positive tuberculin test.

i. Pregnant females with a positive tuberculin test.

j. Patients who have undergone a subtotal gastrectomy and who have a positive tuberculin test.

Isoniazid prophylaxis is also indicated to prevent the complications of primary infection in tuberculin positive children under six years of age. In this instance the therapeutic dosage (10 mg./kg.) is to be used.

Candidates for prophylaxis having a positive tuberculin test should be further evaluated with a chest X-ray. A chest X-ray is not needed for tuberculin negative contacts. Patients with an abnormal chest film should have sputum examinations to rule out the possibility of active disease. Following the initial evaluation, patients on prophylaxis should have a chest X-ray at six months, at twelve months and yearly thereafter.

The usual adult prophylactic dose of isoniazid is 300 mg/day. The children's dose is 5-7 mg/kg/day. The drug is administered for a period of one year. All patients receiving prophylaxis should be seen at least at three month intervals.

Form HTC-4465 "Isoniazid Prophylaxis Summary" should be forwarded to the Division of Chronic Respiratory Diseases at the start of the therapy and six weeks following completion of therapy. The report of the X-ray taken at 24 months should be sent to the Division of Chronic Respiratory Diseases (See Appendix 3).

C. Casefinding

1. Contact Follow-up

The most effective casefinding tool available is the thorough investigation of close contacts of newly diagnosed active cases of pulmonary tuberculosis. On a nationwide basis this technique yields an average of 19 previously undiagnosed cases per 1,000 contacts examined. The responsibility for locating and bringing to medical attention all close contacts of newly diagnosed active cases belongs to the public health nurse and other tuberculosis control personnel. Concerted effort must be made to obtain medical evaluation as quickly as possible. In any given period of time, at least 90 percent of all contacts should have been brought to examination within 30 days.

The first step in the diagnostic evaluation of a tuberculosis contact is the tuberculin test using the Mantoux method as previously outlined. Any close contact with an initially negative tuberculin test should be started immediately on isoniazid prophylaxis and seen by the clinician at three month intervals for one year. Any other contact having initially negative Mantoux tests should be re-tested in six to eight weeks. If he is still negative and is not a close contact, he may be discharged from supervision.

Contacts who are tuberculin positive should be X-rayed. If the X-ray is normal, isoniazid prophylaxis should be started at once and the patient should be seen by the clinician at three month intervals for one year with X-rays being taken in six months and annually thereafter. If the contact is tuberculin positive and has an abnormal X-ray, sputum examination should be done. If these are negative and tuberculosis is excluded, the patient should be started on isoniazid and followed as anyone on prophylaxis is followed. Persons who are non-reactors but who continue to be in close contact with a sputum positive case of tuberculosis should be tuberculin tested every three months until three months after contact is broken and isoniazid prophylaxis should be continued for a full year.

2. Tuberculin Testing

a. *General*

Tuberculin testing in elementary schools has been in progress for a number of years as a part of the school health services. Regulations governing school programs were revised in August, 1966, to state that all school enterers and ninth graders will receive a tuberculin test. This revision becomes effective the first day of the 1967-68 school term.

Chapter 3, Article 322 of the Rules and Regulations of the Department of Health as amended by the Advisory Health Board on August 30, 1966, reads as follows:

> "Section 1. Health Services
>
> G. (Amended August 30, 1966) Tests for Tuberculosis
>
> (1) A test for tuberculosis shall be done on original entry into school, and in the 9th grade by a tuberculin test.
>
> (2) The tuberculin test may be done by either the multiple puncture method or by the Mantoux test using intermediate strength tuberculin (P.P.D. 0.0001 mg.).
>
> (3) All tuberculin reactors shall be X-rayed."

The tuberculin test is the most efficient tool available for the detection of infection (not disease) with M. tuberculosis. School enterers are tested because it is assumed that the number of associates from whom they could have contracted the infection is quite small and, therefore, the person disseminating the organisms should be easily found.

Ninth graders are included in the group to be tested because adolescents going through puberty are considered to be at high risk of developing active disease if they have been previously infected.

b. *Responsibilities of State Tuberculosis Clinics*

(1) State tuberculosis clinics are responsible for the prompt initiation of appropriate follow-up studies and the continuing supervision of:

(a) students or school personnel who have a positive tuberculin reaction and who are referred to the clinic by their family physicians, school physicians, or other health agencies.

(b) associates of school enterer reactors who apply directly or are referred to the clinic.

(2) State tuberculosis clinics will not participate in the actual administration of tuberculin tests performed to meet the requirements of the School Health Code.

(3) When it is necessary to assist in initiating a school tuberculin testing program, tuberculin needles and syringes may be supplied by the Department of Health through the local State tuberculosis clinic. It is emphasized, however, that this is only a temporary procedure and that all such materials shall subsequently be supplied by the school district concerned.

(4) Due to the large number of schools that will be participating in tuberculin testing programs, it will not always be possible to correlate community X-ray surveys with school testing schedules (See Section IV, C, Part 3, "X-ray Surveys"). When these surveys do follow testing programs within two to three weeks, they may be used to assist in the follow-up of reactors and their associates. Individuals found to have X-ray abnormalities suggestive of tuberculosis may then be referred to the local State tuberculosis clinic for completion of the diagnostic evaluation.

When an X-ray survey is not to be conducted after the testing program, reactors and associates of school enterer reactors may be referred to the State tuberculosis clinic for clinical evaluation. This procedure, when used, must be arranged by the referring agency and the clinic to insure that the number of persons involved can be accommodated. Special clinic sessions may be authorized when necessary to handle these individuals. Permission for extra clinic sessions should be requested through the Regional Office to the Division of Chronic Respiratory Diseases.

NOTE: *For further information concerning the school tuberculin testing program the reader is referred to the Guide for School Nursing Services in Pennsylvania and to the Public Health Service booklet "A Child Centered Program to Prevent Tuberculosis."*

3. X-ray Surveys

Chest X-ray surveys are conducted through the joint efforts of the Division of Chronic Respiratory Diseases and the local affiliates of the Pennsylvania Tuberculosis and Health Society. The X-ray survey is most effective as a casefinding tool when it is conducted in high incidence areas. The Division of Chronic Respiratory Diseases provides the local affiliates with accurate information regarding the size and location of the tuberculosis problem so that maximum yield can be derived. It is also highly recommended that State tuberculosis control personnel serve on the planning committee of the local tuberculosis and health society to coordinate X-ray surveys with clinic activities.

Within budgetary limitations community surveys will be conducted in counties and municipalities where the greatest tuberculosis problem exists.

a. *Survey Schedules*

Notices of schedules for community surveys will be sent to the regional medical directors, independent county health departments and local tuberculosis and health societies each spring and fall for the ensuing six months, beginning July 1 and January 1 of each year. These notices must be acknowledged in writing, within fifteen (15) days after they are received. Requests for changes in schedules will be evaluated in accordance with the requirements for State-wide coverage and availability of funds.

Chest X-rays will not be conducted for the following:

(1) School age groups, except as follow-up for school tuberculin testing programs (See Section VI, 1 "Tuberculin Testing").

(2) Industries (The Division of Occupational Health conducts X-ray surveys for industries).

(3) Mental and penal institutions. (The Departments of Public Welfare and Justice are responsible for X-ray survey service for these institutions).

b. *Responsibilities of State Tuberculosis Clinics*

(1) State tuberculosis clinics are responsible for the prompt initiation of appropriate follow-up studies and the continuing supervision of:

(a) Persons who have no private physician and are referred by the local tuberculosis and health society on the basis of a 70 mm. survey film, or a 14 x 17 film reading;

(b) Persons referred by the family physician on the basis of a 70 mm. or a 14 x 17 film reading;

(c) Persons who have failed to report to their private physician within three weeks after notification by the tuberculosis and health society;

These referrals will be in writing and will be made only after the tuberculosis and health society has discussed the problem with the private physician.

(2) The State tuberculosis clinics will contact private physicians who have not supplied diagnostic reports to the tuberculosis society within three weeks after referral of the patient. The clinician will discuss the case with the family physician and will offer the services of the clinic to assist the physician.

(3) On all cases listed above it is the responsibility of the State tuberculosis clinic to report the results of the follow-up, in writing, to the cooperating tuberculosis and health society no later than 45 days from receipt of the information.

c. *Responsibilities of the Cooperating Tuberculosis and Health Society*

(1) To obtain clearance reports on patients referred to family physicians.

(2) To refer immediately to State chest clinic or county health department those patients who have no physician and for whom diagnostic study has been recommended on the basis of a 70 mm. or 14 x 17 film.

(3) To request the assistance of the State chest clinic or county health department in the follow-up of those patients who fail to report for a 14 x 17 film within two weeks of notification and those patients whose physicians have not supplied a clearance report in writing within three weeks after referral. Such requests to State chest clinics and county health departments should be made *only after the tuberculosis and health society has discussed the problem with the private physician* and has exerted persistent efforts to achieve the desired action. All requests and referrals made to the State tuberculosis clinics from the local tuberculosis and health society must be in writing.

NOTE: *In those areas where tuberculosis casefinding activities have been intensified and which have a Regional Program Coordinator (See Section III, "Tuberculosis Control Personnel"), a period of 30 days will be allowed from receipt of film readings to complete follow-up action. When this time has elapsed, the remaining undispositioned cases will be turned over to the office of the Program Coordinator for completion. Upon completion but within 60 days after investigation was begun, a report of results will be submitted from this office to the cooperating agency.*

The tuberculosis and health society should refer patients to the State chest clinic serving the area in which the patient resides. This procedure applies only to patients who are *residents* of the area served by the tuberculosis and health society assisting with the survey. The names and addresses of *non-residents* should be sent immediately to the local State tuberculosis clinic (or office of the Program Coordinator in areas where such have been established) who will subsequently route this information thru the Division of Chronic Respiratory Diseases to the appropriate health jurisdiction (if other than that of the clinic concerned) for follow-up. The results of completed cases will be returned to the originating cooperating agency to be included in their survey report.

(4) The Results of X-ray Case-Finding Program Report will be prepared by the local tuberculosis and health society, and forwarded to the Division of Chronic Respiratory Diseases, Department of Health, P. O. Box 90, Harrisburg, Pennsylvania (17120), at the completion of all follow-up on Equivocal and Possible films *but not later than 120 days* from the last date the survey tests were taken.

(5) This will be the only report submitted on each survey, thus necessitating rapid completion of all follow-up activity.

(6) When a report indicates that cases of diagnosed tuberculosis were found, it shall be accompanied by a "Tuberculosis Morbidity Report Card," Form HTC-4434, properly completed for each case. These morbidity report forms may be completed by the Society and will act as a guide in obtaining complete information of each case.

(7) Quantities of Report Form HTC-4483, "Results of X-ray Case-Finding Program", along with instructions for its completion, and "Tuberculosis Morbidity Report Cards", Form HTC-4434, will be supplied by the Division. Requests for additional quantities should be directed to the Division of Chronic Respiratory Diseases, Department of Health, P. O. Box 90, Harrisburg, Pennsylvania (17120).

MEDICAL SUPERVISION SUMMARY

CLASSIFICATION	SEEN BY CLINICIAN	CHEMOTHERAPY	X-RAY EXAMINATION	SPUTUM EXAMINATION	PUBLIC HEALTH NURSE SUPERVISION
1. Active with positive sputum - organisms susceptible to primary drugs	At 2 week intervals. Should, except in rare instances, be hospitalized	Continuous therapy with at least two drugs	Monthly	Monthly - Should, with initial examination, request primary drug susceptibility studies be performed. If still positive after six months these should be repeated.	Frequent home visits to insure that isolation procedures are being carried out, that patient is following therapy as directed by physician and that patient is attending clinic
2. Active with positive sputum - organisms resistant to primary drugs	Hospitalize	Should be maintained on INH while awaiting admission to hospital			
3. Active with negative sputum	Monthly	Maintained on at least two drugs to which the organisms have been susceptible	Monthly	Monthly	As in "1" above except that strict isolation need not be observed.
4. Quiescent less than 18 months	Two month intervals	Maintained on at least two drugs to which the organisms are susceptible	Two month intervals	Two month intervals	Home visits at 2-3 week intervals to encourage maintenance of drug regimen and clinic attendance.
5. Quiescent more than 18 months	Three month intervals	Maintained on INH as long as cavitation is present	4 - 6 month intervals	4 - 6 month intervals	Insure clinic attendance
6. Inactive 0 - 18 months	Three month intervals	Maintained on at least two drugs to which patient's organisms are susceptible.	Three month intervals	Three month intervals	Home visits at 4 - 6 week intervals to encourage maintenance of drug regimen and clinic attendance.
7. Inactive 18 - 60 months	Three months intervals if on drugs. If not on drugs, six month intervals	If there is extensive residual fibrosis or underlying lung disease patient should be maintained on INH.	Six month intervals	Six month intervals	Insure clinic attendance

MEDICAL SUPERVISION SUMMARY

CLASSIFICATION	SEEN BY CLINICIAN	CHEMOTHERAPY	X-RAY EXAMINATION	SPUTUM EXAMINATION	PUBLIC HEALTH NURSE SUPERVISION
8. Inactive more than 60 months	May be discharged from clinic. If maintained on clinic rolls, should be seen annually. If on drugs – three month intervals	As for #7 above	Six month to annually	Annually	Remind to have annual examination.
9. Primary active uncomplicated (Primary pulmonary tuberculosis – minimal)	Monthly	Maintained on adequate drug regimen for one year	Monthly	Monthly when it is possible to obtain specimens	Frequent home visits to insure that drug regimen is being followed as directed
10. Primary active-complicated (e.g., progressive primary, extra-pulmonary dissemination, atelectasis)	Hospitalize	Maintained on at least two drugs for at least 18 months or for 6 months after apparent cure of all complications.			
11. Primary inactive	Initial evaluation. If on INH prophylaxis should be seen at three month intervals.	If no previous chemotherapy has been administered and patient has a more than 10 mm. reaction to intermediate P.P.D. INH should be given for one year.	With initial evaluation and at six month and yearly intervals thereafter.	As indicated by X-ray.	Encourage maintenance of prophylactic regimen. Remind to have annual X-ray examination.
12. Skin test converter	Three month intervals for one year.	INH prophylaxis for one year.	As for "11" above	As for "11" above	As for "11" above.
13. Extra-pulmonary	As indicated by site and severity of the disease.	Should be maintained on at least two drugs to which the patient's organisms are susceptible.	With initial evaluation and at six months intervals while disease is active. Yearly thereafter.	With initial evaluation and as indicated thereafter.	Frequent home visits to encourage maintenance of drug regimen and clinic attendance.
14. Persons on prophylaxis for any reason	Three month intervals for one year.	INH prophylaxis for one year.	Initial evaluation, six months, and annually thereafter.	As indicated by X-ray.	
15. Contacts	Initial evaluation as outlined in Section IV – C Part 1	As indicated by evaluation	If skin test positive should have initial six month and yearly films thereafter	As indicated by evaluation.	Responsible for eliciting, locating and bringing to examination all contacts.

MEDICAL SUPERVISION SUMMARY

CLASSIFICATION	SEEN BY CLINICIAN	CHEMOTHERAPY	X-RAY EXAMINATION	SPUTUM EXAMINATION	PUBLIC HEALTH NURSE SUPERVISION
16. Associates of reactors	Initial evaluation as outlined in Section IV - C Part 1	As indicated by evaluation	If skin test positive should have initial six month and yearly films thereafter	As indicated by evaluation.	Responsible for eliciting, locating and bringing to examination all associates.
17. Suspects (persons with X-ray finding compatible with tuberculosis).	If 14" x 17" is abnormal, and tuberculosis is excluded, patient should be referred to private physician or other agency for definite diagnosis of X-ray abnormality.	As indicated by evaluation	All abnormal 70 mm. films should be followed with 14" x 17" film.	If tuberculin test is positive	As indicated by medical evaluation.

V. HOSPITALIZATION OF CLINIC PATIENTS

A. Indications For and Advantages of Hospitalization

While potent anti-tuberculosis agents and a better understanding of the disease have considerably decreased the role of the sanitorium in controlling tuberculosis, hospitalization for all newly diagnosed active cases of tuberculosis is recommended for the initial phase of treatment.

1. The fact that a person is excreting in his sputum viable tubercule bacilli, which are capable of producing infection and disease in other individuals with whom he is in contact, is in itself an indication for hospitalization. This removes the patient from the community for his period of infectiousness and is based on sound public health practices.
2. Individuals in whom the disease is producing symptoms (e.g., weight loss, fever, hemoptysis) need hospitalization for close medical supervision.
3. Often tuberculosis, while strongly suspected, cannot be confirmed with tools available in the out-patient clinic; thus, it is necessary to hospitalize the patient for diagnostic purposes.
4. The institution of an adequate individualized drug regimen is greatly facilitated by the immediate availability of a reliable laboratory and close patient supervision to detect early signs of drug toxicity or intolerance.
5. An often forgotten advantage of initial hospitalization, and one which is considered by many to be the most important, is the opportunity to instruct the patient regarding his disease. This is the most effective means of obtaining patient cooperation following discharge. The necessity for strict maintenance of the chemotherapeutic regimen can be stressed and reinforced daily by trained personnel during the hospital stay.
6. With the increasing average age of newly diagnosed tuberculosis patients there is also an increasing incidence of associated medical problems which can be better treated in a hospital environment.
7. Hospitalization affords an opportunity to attempt to remedy some of the social factors often present in the etiology of tuberculosis. These include poor living conditions, unemployment and alcoholism. To persons with these handicaps, social rehabilitation is as important as medical rehabilitation.

B. Procedures For Hospitalization of Clinic Patients

When hospitalization of clinic patients is considered necessary, the forms listed in Appendix 3 for this purpose should be completed and forwarded as indicated. Patients from Philadelphia and Allegheny Counties are admitted upon approval of the Medical Director of the respective State tuberculosis hospital. Applications for patients from all other counties are submitted by the clinics or county or city health departments concerned to the Division of Chronic Respiratory Diseases for approval and designation of the hospital to which the patient is to be admitted. When a patient is thought to harbor organisms which are resistant to primary drugs, a notation to this effect should accompany the request for hospitalization. The admission of *emergency* cases may be arranged by telephone communication to the office of the Director of the Division of Chronic Respiratory Diseases. The transportation of a patient to a State tuberculosis hospital is the responsibility of the patient, his family or the local community. Frequently, transportation assistance for indigent patients is provided by the local tuberculosis and health society. The responsibility for transportation of court admitted cases rests with the local law enforcement authorities. This is clearly stated in Section 19 B, Public Law 1510, under the Act of April 23, 1956.

In order to expedite the institution of an adequate treatment regimen for patients being hospitalized at State tuberculosis hospitals, the procedure outlined below is to be followed:

1. Every effort will be made to obtain all clinic and outside chest X-rays and forward them to the hospital either with the patient or by mail. These X-ray films will be returned when they are no longer needed by the hospital.
2. A medical summary will be forwarded directly to the hospital. This summary should contain:
   a. date of diagnosis;
   b. bacteriologic findings (including results of drug susceptibility studies) to include dates and the name of the laboratory where these results were obtained;
   c. duration, dates and dosage of previous and present antituberculosis chemotherapy;
   d. all other pertinent medical data as well as any information concerning patient or family cooperation, understanding of diagnosis, etc.
3. If a positive smear of culture has been obtained at the State laboratory, the laboratory will be notified of the patient's hospitalization and requested to forward to the hospital a copy of susceptibility studies already completed or notification that these are in progress.
4. If a positive smear or culture has been obtained at a laboratory other than the State laboratory, the laboratory concerned will be requested to forward the culture to the respective State tuberculosis hospital. The State clinics may obtain the necessary shipping containers upon request to the State laboratory.

These procedures, when followed, will result in a better continuity of care and a much shorter period of hospitalization for the patient.

C. Hospital-Clinic Communication

Following hospital admission a report of the medical staff's initial evaluation will be forwarded to the clinic from which the patient has been referred. The clinics are responsible for forwarding information regarding the patient's progress to the family of the patient or to the private physician concerned. Reports of all re-evaluations are also sent to the clinic. This should occur at least at three-month intervals. When a patient is discharged, Form HTC-4448, "Recommendation for Out-patient Chemotherapy," containing discharge diagnoses, classification and recommendations for chemotherapy is immediately forwarded to the local clinic. This is followed by a complete discharge summary to be completed no later than three weeks following discharge.

VI. INFECTION WITH ATYPICAL ACID-FAST BACILLI

Pulmonary disease which is indistinguishable by clinical, radiologic, or pathologic means from tuberculosis may be produced by a number of mycobacteria other than Mycobacterium Tuberculosis or Mycobacterium Bovis. These organisms are termed variously "atypical," "anonymous," or "unclassified" acid-fast bacilli. Runyon has categorized these organisms into four large groups which helps to provide a useful working basis for identification and reference. These groups are as follows:

Runyon Group I – Photochromogens (M. kansasii)
Runyon Group II – Scotochromogens
Runyon Group III – Nonphotochromogens (Battey bacilli)
Runyon Group IV – Rapid growers (M. fortuitum)

This classification is based upon pigment production by the colonies and their rate of growth. Colonies of Group I upon exposure to light for several hours develop a bright yellow color. Group II organisms produce yellow-orange colonies even when incubated in the dark. The coloring of colonies of Group III is much the same as M. tuberculosis. These can be differentiated by other characteristics, however. Group IV organisms are distinguished by producing colonies within seven days on Lowenstein-Jensen media. Mycobacterium tuberculosis is the only acid-fast organism which gives a positive niacin test.

The isolation from the sputum of acid-fast bacilli other than M. tuberculosis is of questionable significance and requires further evaluation. Studies have proven that atypical organisms can often be isolated from the sputum of persons with no evidence of pulmonary disease. One must depend largely upon the closeness and consistency of association of the recovered organisms with the clinical picture of the disease. Some indications of the etiologic significance of mycobacteria recovered from patients may be derived from:

1. The number of positive colonies per culture.
2. The number of specimens positive over a period of time.
3. The absence of other recognized etiologic agents for observed disease.

The clinical manifestations of pulmonary disease caused by atypical mycobacteria do not differ from those of disease caused by M. tuberculosis. Group I and III are most frequently reported as causing pulmonary disease with rare cases being produced by Group II. Extra-pulmonary disease, especially adenitis, is most frequently associated with Groups I and II.

There is little precise information concerning the epidemiologic characteristics of infections caused by organisms. It has been well documented that infection as evidenced by a positive reaction to specific P.P.D.'s, (P.P.D.-Y, P.P.D.-G, P.P.D.-B) is extremely common, while the amount of disease is quite small in proportion to the total infected population. No instance of person-to-person transmission of the disease has been verified. It is thought that because of the endemic nature of infection with the various groups (e.g. Group II – Southeastern U.S. and Group I – Midwestern U.S.) that an environmental factor such as the soil or plant life is involved. This has not been proven.

The importance of pretreatment drug-susceptibility studies cannot be overemphasized in determining the selection of drugs for the treatment of mycobacterial infections. Initial pretreatment drug-susceptibility testing will show the atypical organisms to have varying degrees of resistance to the primary drugs. Present recommendations are that patients with documented disease due to atypical mycobacteria be started initially on INH, PAS, and daily streptomycin and drug regimens subsequently be adjusted according to susceptibility studies. As with tuberculosis, at least two effective drugs are always used. Group I infections are more often susceptible to chemotherapy than those of Group II and III. Because of the high incidence of drug resistance, early surgery plays a much greater role than in tuberculosis and should not be postponed with the remote hope of achieving a sputum conversion on chemotherapy.

Because of the lack of person-to-person transmission of atypical infection, the public health aspects of the disease are not nearly so important as those of tuberculosis. These patients should be separated from patients with tuberculosis because of the possibility of superinfection. There is a growing feeling that reliable patients who are asymptomatic may be safely treated at home without endangering either himself, his family or the public.

VII. TUBERCULOSIS CASE REGISTERS

In order to insure an adequate tuberculosis control program, there must be available a central pool of current information on tuberculosis patients residing in any given area. A register is maintained to provide data which, when critically analyzed, can aid in the planning and direction of tuberculosis control activities on the local, State and National levels. A good tuberculosis case register contains the most up-to-date information on all tuberculosis patients classified as active or inactive less than five years.

It is the responsibility of the local tuberculosis clinic to provide the register with (1) the file copy of Form HTC-4000 – "Daily Record of Clinic Procedures," (These records will be returned to the clinics when the information is transcribed) and (2) any additional information that may be requested to insure that the register is current and complete.

In accordance with the previously outlined guide for medical supervision (i.e., monthly bacteriologic examinations for active cases) a list of patients overdue for examination (X-ray, sputum or clinician evaluation) will be prepared on a quarterly basis. These will serve as a reminder to clinic personnel in scheduling patients for the above examinations and making certain appointments are kept.

Additional information on the operation of tuberculosis case registers can be obtained by referring to the Tuberculosis Case Register Manual.

APPENDIX I

CLASSIFICATION OF PULMONARY TUBERCULOSIS

The following outline for diagnosis and classification is from the 1961 edition of Diagnostic Standards and Classification of Tuberculosis, published by the National Tuberculosis Association.

THE PURPOSES OF CLASSIFICATION

The lesions of tuberculosis are highly diverse in appearance, and their manifestations are numerous. No single system of classification can give information which completely describes the lesions. Certain classifications and descriptions are needed, however, for records and for statistical purposes. These essential categories may be termed *basic*, and they should include subdivisions which describe the status of a patient's disease at the time of diagnosis, and at any time in the months and years thereafter. These basic classifications should be used for all cases.

Additional classifications may be used which give supplementary valuable information in outline form. These *optional* classifications may be used for the benefit of the hospital and the patient, for a comparison of disease characteristics encountered in other institutions, and for investigative studies.

The various categories must have precise meanings and definitions. They are used chiefly when there is overt evidence of tuberculous disease, but certain classifications may also be applied to tuberculous infection (i.e., a tuberculin reactor who has no other evidence of disease demonstrated by chest roentgenogram, bacteriologic examinations, or symptoms).

The basic classifications should include the following categories:

Extent of disease
Status of clinical activity
Bacteriologic status
Therapeutic status
Exercise status.

The optional classifications may include the following features:

General status of patient
Pathologic character of lesions
Detailed location of lesions
Pathogenetic status
Mode of dissemination
Dynamic status
Severity of symptoms
Duration of disease
Previous treatment.

(The classification of primary tuberculosis is considered separately in a later section of this chapter.)

Extent of Disease

The total extent and the location of pulmonary lesions are decided from examination of the chest roentgenograms. The postero-anterior single film is usually sufficient but, in addition, stereoscopic, lateral, oblique, lordotic, overexposed, Bucky, or planigraphic films may be necessary to establish the extent, distribution, and character of the disease, and the presence or absence of cavity.

Minimal. Minimal lesions include those which are of slight to moderate density but which do not contain demonstrable cavitation. They may involve a small part of one or both lungs, but the total extent, regardless of distribution, should not exceed the volume of lung on one side which is present above the second chondrosternal junction and the spine of the fourth or the body of the fifth thoracic vertebra. The term minimal is not to be interpreted as minimizing the activity or hazards of the disease in this stage.

Moderately advanced. Moderately advanced lesions may be present in one or both lungs, but the total extent should not exceed the following limits: disseminated lesions of slight to moderate density which may extend throughout the total volume of one lung, or the equivalent in both lungs; dense and confluent lesions which are limited in extent to one-third the volume of one lung; total diameter of cavitation, if present, must be less than 4 cm.

Far advanced. This term is used to describe lesions which are more extensive than moderately advanced.

Note: The extent of pulmonary lesions following any method of therapy must be re-estimated from time to time. The original extent of disease should always be noted; the change in extent should be noted; but the *least extent* which can be listed after chemotherapy, resection, or collapse procedures is minimal, even though a lesion can no longer be seen by roentgenography. This restriction also applies to lesions which cannot be seen on the roentgenogram, but which are associated with the confirmed finding of tubercle bacilli in pleural effusions, sputum, and even in gastric aspirates.

Examples of extent. "Pulmonary tuberculosis, far advanced"; "Pulmonary tuberculosis, minimal (after resection)."

Status of Clinical Activity

The diagnosis of tuberculosis must have been bacteriologically confirmed before reference can be made to activity. The stages of activity of pulmonary tuberculosis are based largely on roentgenographic and bacteriologic factors, and on their duration. Symptoms and signs may be of some use, but they are so uncertain that they must be secondary considerations. The determination of bacteriologic status must include the use of sputum concentrates, cultures, and animal inoculations, as well as similar tests of gastric aspirates or lavages. The roentgenographic status should be determined not only by the use of serial posteranterior films, but by planigrams and other supplementary films, so as to establish the presence or absence of cavitation. The following classes are now officially recognized:

Active. The classification of pulmonary tuberculosis as active may be based on one or more of the following criteria:

Roentgenographic: An active status exists if probability of change is obvious on examination of a single chest roentgenogram, or if change for better or worse is demonstrable on serial roentgenograms at intervals of six months or less. The presence of cavity usually signifies active tuberculosis, but under certain circumstances it may be consistent with a quiescent status, as described below.

Bacteriologic: Tubercle bacilli demonstrated by any method in the sputum, gastric aspirates, or tracheal aspirates denote active tuberculosis.

Complications: The presence of tuberculous empyema, bronchial or pleural fistula, or active endobronchial tuberculosis requires that associated pulmonary tuberculosis be classified as active even if other criteria for the activity of the underlying pulmonary process are not apparent.

Constitutional and respiratory symptoms may be present but often correlate poorly with bacteriologic and roentgenographic signs of tuberculous activity, especially after chemotherapy has been started. For this reason, such symptoms cannot be relied on either to indicate or to exclude activity of the tuberculosis.

Duration of activity: The duration of activity should be designated, if known. The dynamic state of an active lesion should be designated if the roentgenographic, bacteriologic, or symptomatic data have shown a change. The terms improved, unimproved, or worse may be added to active after an interval of observation. *Example:* "Active, improved (3 years)"; or "Active, unimproved (5 months)."

Quiescent. This newly reinstated term is to be applied to a class intermediate between active and inactive. The term quiescent requires negative bacteriologic findings and stable or improving lesions visible by roentgenography, but it allows the presence of cavitation.

This category includes the "open negative" lesions which are now being seen with increasing frequency. The cavity may consist of small residual annular shadows, or may be thin walled or cystic in appearance. The film findings may also include large dense areas, blocked and filled cavities of recent origin (six months or less), and densities with rarefied centers.

Bacteriologic findings must be negative on monthly examinations for at least six months by all methods of examination used, including sputum concentrates and sputum or gastric cultures (or animal inoculations). The occurrence of a positive specimen constitutes a reversion to the status of active. The lesions may be stable or improved on the roentgenogram, but they must not have shown an increase in extent or activity.

Patients in this classification should not proceed to the status of inactive until cavitation has been absent by all means of roentgenographic examination for six months. The duration of quiescence should be noted, e.g., "Quiescent (14 months)." Quiescent cases may remain so indefinitely, may progress to inactive, or may regress to active.

Inactive. This term is applied to constant and definite healing. The bacteriologic tests must have been negative on monthly examinations for at least six months by all methods used, including sputum concentrates and sputum or gastric cultures or animal inoculations. Serial roentgenograms must show stability or, at most, slight clearing and contraction of the lesions, and must show no evidence of cavitations (on planigrams as well) for at least six months.

The required period of negative bacteriologic status and the duration of stable, non-cavitary, roentgenographic findings might not coincide, but the classification of inactive cannot be used until both have been present for at least six months. The status may change from active to inactive in a minimum of six months; it may change from quiescent to inactive when cavitation has been absent for six months. It may revert to active or quiescent with roentgenographic worsening or with the appearance of a cavity.

The duration of inactivity should be designated. *Examples:* "Inactive (X months, since January, 1961)"; or "Inactive (2 years, since January, 1959)."

Activity undetermined. The disease may be temporarily classified by this term if adequate bacteriologic and roentgenographic examinations have not been completed, or if observation has been too brief. Every effort should be made to avoid this category. A provisional estimate of activity may be required for public health purposes; in such cases the terms *probably active or probably inactive* may be used when definite classification is not possible. For those patients who have had resection of their active disease, the term probably inactive may also be used during the waiting period of six months which is required before they may be classified as inactive, provided that the roentgenographic and bacteriologic findings are not in contradiction.

Dead. This fact may be supplemented by listing the cause of death, by mention of a necropsy, and by a final classification of clinical activity if the cause of death was not tuberculosis.

Bacteriologic Status

This classification is defined in the section, Status of Clinical Activity, above, but it may be more simply listed as positive or negative for the presence of tubercle bacilli.

Positive. A positive bacteriologic finding means the demonstration of tubercle bacilli by microscopy of sputum specimens, preferably confirmed by typical growth in culture or by guinea pig inoculation from sputum or gastric aspirates. Susceptibility studies should be made for the major antituberculosis drugs whenever possible, both before and during chemotherapy *(see* Demonstration of Tubercle Bacilli in Chapter II). It is most important to have information as to whether or not such tests were made, the dates, the drugs used, and the susceptibility results.

Negative. A negative bacteriologic finding means that adequate examinations have been made to exclude the presence of tubercle bacilli. These tests should include sputum specimens negative for tubercle bacilli on microscopy, and two or more negative cultures or guinea pig inoculations from adequate sputum specimens or gastric aspirates over a period of three months.

Therapeutic Status

Chemotherapy and surgical collapse or excision, when used, should be added to the terms applied to the clinical status. *Example:* "Inactive (5 years) (Chemotherapy, 1956-1959) (Right upper lobectomy, 1957)."

Exercise Status

The amount of exercise prescribed for a patient should be designated by a roman numeral, based on the following groups. These apply only to the exercise status with respect to tuberculosis:

I. Bed rest: Exercise varies from strict immobilization to bathroom privileges.

II. Semiambulatory: Rest and exercise combined, meals out of bed or in the dining room, and group diversion, for a total of four hours out of bed per day.

III. Ambulatory: A greater amount of exercise, including planned walks, occupational therapy, attendance at classes, shop work, and other activities.

IV. Ordinary living conditions: The amount of exercise equals full activities of home life and work. Medical restrictions on vigorous activities and sports, and the institution of a noon rest hour may be prescribed. if indicated.

Example: "Inactive (8 months), (Chemotherapy), IV."

PRIMARY TUBERCULOSIS

The classification of primary tuberculosis can be essentially the same as that for reinfection tuberculosis, with the following allowances:

Diagnosis. Primary tuberculosis may manifest its presence only by reason of a positive tuberculin reaction. The roentgenogram may be negative for past or present disease in 75 to 90 per cent of such reactors.

Extent of disease. The extent of infiltration in the lung will usually be less than that found in the reinfection type of disease, and quite often is minimal.

Pathology of lesions. The pathologic character of primary lesions will include less fibrosis, more lymph node enlargement, and a greater tendency to atelectasis and to ultimate calcification of the parenchymal or nodal portions of the primary complex.

Basic features. The basic features of primary tuberculosis should include data on:

Tuberculin tests
Bacteriologic data
Roentgenographic findings
Symptoms
Extrapulmonary tuberculosis.

Classification. Primary tuberculosis may be classified as to extent of lung lesions and status of activity. The extent is classified the same as for reinfection tuberculosis. Activity is classified as follows:

Active: The patient has a positive tuberculin reaction plus one or more of the following: tubercle bacilli in the bronchial secretions or gastric contents; roentgenographic evidence of activity in a parenchymal, pleural, or lymph node lesion. Tuberculin reactors less than 36 months of age or those of any age who have converted from nonreactors to reactors within the previous year should, in the opinion of many, be *treated* as having active primary tuberculosis even in the absence of roentgenographic and bacteriologic criteria of activity. They should not, however, be *classified* or *reported* as cases of active primary tuberculosis in the absence of these latter criteria.

Inactive: There is complete absence of criteria of activity. In patients seen during the active phase of primary tuberculosis, all criteria of activity should be absent for at least six months.

Undetermined: No classification can be made due to lack of data.

NOMENCLATURE AND CODING

Two coding systems are available: the *Standard Nomenclature of Diseases and Operations* (published for the American Medical Association by the Blakiston Division of the Hill Book Company, 5th edition, New York, 1961), and the *International Classification of Diseases* (Public Health Service Publication No. 719, Department of Health, Education and Welfare, Washington, D.C., 1959).

Standard Nomenclature

The *Standard Nomenclature* (SNDO) bases its classification of diseases and operations on the clinical diagnosis. It stresses the use of a standard terminology and presents a system of indexing. The method of classification consists basically of two sets of three numbers separated by a hyphen; the first three digits describe the topographic site, and the last three digits describe the etiologic agent. Supplementary descriptive details are indicated by the addition of a fourth digit to either or both sets of numbers.

International Classification

The *International Classification* (ICDA) was originally designed as a system of classification and not as a guide for nomenclature. It was particularly useful to the epidemiologist and the statistician in furnishing quantitative data about groups of cases. The International system was modified in 1959 by the addition of a fourth decimal digit to the original code of three digits to provide a greater degree of specificity, and the subtitle, "*Adapted for Indexing of Records and Operation Classification,*" was added. (It will be noted that the ICDA system uses a special form for listing cured or arrested pulmonary tuberculosis—Y03.0—Y03.2—and for tuberculin sensitivity without clinical or roentgenographic symptoms—Y01.)

The system which a hospital uses will depend upon its needs, such as the frequency of tuberculous admissions and the amount of clinical research being done. The International system is simpler for administrative and epidemiologic data, whereas the Standard system is more detailed but more valuable for clinical research. It is to be noted that the International system is included in the Standard Nomenclature text, and dual coding may be used if desired.

Coding For Pulmonary Tuberculosis

SNDO		ICDA
360–123	Tuberculosis of lung (pulmonary tuberculosis)	002
360–1231	Minimal, active	002.0
360–1232	Moderately advanced, active	002.1
360–1233	Far advanced, active	002.2
360–1234	Minimal, inactive	Y03. .
360–1235	Moderately advanced, inactive	Y03. .
360–1236	Far advanced, inactive	Y03. .
360–1237	Minimal, quiescent	Y03. .
360–1238	Moderately advanced, quiescent	Y03. .
360–1239	Far advanced, quiescent	Y03. .
360–123x	Activity undetermined	002.9
361–1233	Tuberculosis of lung, miliary, active	002.4
361–1236	Tuberculosis of lung, miliary, inactive	002.4
3063–123	Tuberculosis of lung, primary complex	004
3063–1231	Predominantly pulmonary form	
3063–1232	Tracheobronchial form	
3063–1233	Combined form	
3063–1237	Tuberculosis of lung, primary complex, inactive	Y03
3601–123	Infection of lung, due to unclassified mycobacterium (extent and activity as above)	
191	Positive reaction to tuberculin tests without clinical or roentgenographic symptoms	Y01

APPENDIX 2

SUMMARY OF CURRENTLY USED ANTITUBERCULOSIS DRUGS

DRUG	DOSE		HOW ADMINISTERED	TOXIC EFFECTS (1)	ALLERGIC MANIFESTATIONS (2)	PRECAUTIONS
	ADULTS	CHILDREN				
Isoniazid (INH) Tyvid (Merrell) Nydrazid (Squibb) Hyzyd (Dumas - Wilson) Niconyl (Parke-Davis)	3-5 mg/kg/day (1.4-2.3 mg/lb/day) usually 300 mg/day	10-15 mg/kg/day Not over 400 mg/day	Orally in a single daily dose or in divided doses - tablets or liquid. Parenteral preparation is available if needed.	1) Peripheral Neuritis (0.3%) 2) Convulsions (rare) 3) Toxic encephalopathy (rare) 4) Optic Neuritis and atrophy (rare) 5) Others - muscle twitching, dizziness, stupor, euphoria, psychosis, blood dyscrasias. 6) questionable - Teratogenic carcinogenic 7) overdose - acidosis, elevated blood sugar, seizures, coma	Incidence 0.1% 1) skin rashes - urticarlal, morbilliform, maculo-papular, purpuric 2) fever 3) hepatitis (rare)	Pyridoxine 50-100 mg daily to all adults receiving over 5 mg/kg and others as indicated. Children very rarely need Pyridoxine.
Para-Aminosalicylic Acid (PAS) Sodium Sodium PAS (Miles) Aminosalicylic Acid (Lilly) Neopasalate (Dumas-Wilson) Potassium Paskalium (Glenwood) Neopasalate K (Dumas-Wilson)	200 mg/kg/day (91 mg/lb/day) 9 - 12 gm/day	200 - 300 mg/kg/day Not over 10 gms/day	Orally in a single daily dose or In divided doses. Available in tablets, powder, liquid, granules, enteric coated tablets, potassium salt, buffered preparation	1) Gastric irritation manifested by anorexia, nausea, vomiting, diarrhea, pain, peptic ulceration (1-4%) 2) goitrogenic action and hypothyroidism (less than 0.1%) 3) depressed prothrombin and proconvertin activity (rare)	Incidence - 7.2% 1) fever 2) skin rashes 3) hepatitis (0.2%) 4) myalgia and arthralgia 5) blood dyscrasias (rare) 6) eosinophilic pneumonia (rare) 7) pancreatitis, nephritis 8) infectious mono-like syndrome	Always given with meals. May be given with antacids. May start with small dose and gradually increase to adequate levels

DRUG	DOSE		HOW ADMINISTERED	TOXIC EFFECTS (1)	ALLERGIC MANIFESTA-TIONS (2)	PRECAUTIONS
	ADULTS	CHILDREN				
Streptomycin Sulfate (SM) (Wyeth) (Pfizer) (Squibb)	15 mg/kg/day (7 mg/lb/day) usually 1 gm/day X 60-90 days then 1 gm BIW or TIW	20-40 mg/kg/day Not over 1 gm/day	Single daily IM dose for 60-90 days then 2 or 3 times weekly	1) Vestibular dysfunction as manifested by vertigo, dizziness, nausea. Occurs in 10-15% of patients receiving daily SM for 2-3 mos. Only 1-2% of patients receiving less than daily SM demonstrate vestibular signs. 2) Auditory disturbances – tinnitus and high tone loss (1-5%) 3) Renal injury (rare) 4) Peripheral neuritis (rare) 5) Perioral paresthesias 6) Pain at injection site	Incidence - 5.8% 1) skin rashes (5%) 2) fever (rare) 3) lymphadenopathy (rare) 4) blood dyscrasias (rare) 5) anaphylactic reaction (rare)	Routine audiometry and BUN in older patients receiving daily SM and all others as indicated. Close observation for signs of vestibular or auditory dysfunction.
Pyrazinamide (PZA) Available through hospital pharmacy only (Merck Sharp & Dohme)	40 mg/kg/day (18 mg/lb/day) Not over 3 gm/day	30-35 mg/kg Not over 1.5 gm/day	Orally in a single daily dose or divided doses	1) hepatitis 2-3% of patients receiving 25 mg/kg for 12 weeks and 6% of patients receiving 40 mg/kg for 24 weeks. 2) hyperuricemia - may or may not be accompanied by acute gouty arthritis 3) gastric irritation with anorexia nausea, vomiting 4) photosensitivity with increased ease of tanning (rare) 5) increased difficulty in diabetic management (rare)	Incidence - rare 1) fever 2) skin rashes 3) arthralgias	SGOT at monthly intervals. Monthly examination of abdomen for hepatic or splenic enlargement. Serum uric acid determination as indicated.

(1) & (2) Listed in order of frequency of occurrence

	DOSE					
DRUG	ADULTS	CHILDREN	ADMINISTERED	TOXIC EFFECTS (1)	ALLERGIC MANIFESTATIONS (2)	PRECAUTIONS
Cycloserine (CS) Seromycin (Lilly)	15 mg/kg/day (7 mg/lb/day)	5-10 mg/kg/day (20-25 mg/kg/day has been used without serious effects)	Orally in a single daily dose or divided doses	1) psychosis 2) convulsions } 5-10% of patients receiving 1 gm/day 3) somnolence 4) headache 5) tremor 6) hyperreflexia	Incidence - (rare) 1) fever 2) skin rashes	Not used in patients with a history of epilepsy. Evaluation of renal function prior to starting drugs. Serum levels must be obtained if used in patients with renal impairment. Pyridoxine should be given especially if INH is also being used.
Ethionamide (ETA) Trecator (Ives)	15 mg/kg/day (7 mg/lb/day) Usually 1 gm /day	Not determined	Orally in a single daily dose or in divided doses.	1) gastric irritation with nausea, vomiting and anorexia - 50% of patients receiving 1 gm/day 2) hepatitis (especially diabetics) 3) postural hypotension 4) mental depression 5) increased difficulty in diabetic management 6) peripheral neuropathy (rare) 7) convulsions (rare)	Incidence - rare 1) skin rashes 2) purpura 3) stomatitis 4) tender gynecomastia 5) impotence	SGOT at monthly intervals. Give with meals. Antacids may be used.

4

DRUG	DOSE		HOW ADMINISTERED	TOXIC EFFECTS	ALLERGIC MANIFESTATIONS	PRECAUTIONS
	ADULTS	CHILDREN				
Kanamycin (KM) Kantrex (Bristol)	11 mg/kg/day (5 mg/lb/day) Usually 0.5 gm/day	15 mg/kg/day	Single daily IM dose	1) Vestibular damage with vertigo (7%) 2) Cochlear damage manifested by high tone deafness. This is not reversible but does not progress after drug is discontinued. 3) Renal injury with proteinuria, hematuria, cast and azotemia. 4) Curare-like effect on neuromuscular injection usually with peritoneal instillation. 5) Paresthesias, restlessness and headache. 6) Pain and persistent nodules at injection sites.	Incidence – 10-12% 1) eosinophilia (8-10%) 2) fever 3) skin rash 4) pruritis 5) anaphylaxis (rare)	Baseline and monthly audiogram and BUN. Monthly urinalyses. Close observation of older patients receiving drug.
Viomycin Sulfate (VM) Vinactane (Ciba) Viocin (Pfizer) Viomycin Sulfate (Parke-Davis)	9 mg/kg/day (4 mg/lb/day)	10 mg/kg/day or 30 mg/kg BIW	Single daily biweekly or triweekly IM dose	1) Vestibular damage with vertigo. 2) Cochlear damage with hearing loss and tinnitus. 3) Renal injury with proteinuria, pyuria, hematuria and azotemia. 4) Electrolyte imbalance with hypocalcemia and hypokalemia. 5) Fluid retention and edema.	Incidence – 5-10% 1) eosinophilia 2) skin rashes 3) anaphylaxis (rare)	Baseline and monthly audiogram and BUN. Serum electrolytes as indicated. Monthly urinalyses

EXPERIMENTAL DRUGS (6)

DRUG	DOSE	HOW ADMINISTERED	TOXIC EFFECTS	ALLERGIC MANIFESTATIONS	PRECAUTIONS
Ethambutol (EMB) Myambutol (Lederle)	15-25 mg/kg/day (7-10 mg/lb/day)	Single daily oral dose	1) Retrobulbar neuritis with reduced visual acuity, central scotomata and loss of green perception. 2) Peripheral neuritis 3) Headache	Incidence (rare) 1) skin rash	Baseline and monthly tests of visual acuity. Differences of greater than 10 are considered significant. Follow-up opthalmic evaluation is indicated if there is significant change in Snellen test.
Capreomycin (CM) Capastat (Lilly)	15 mg/kg/day usually 1 gm/day (5-7 mg/lb/day)	Single daily IM dose	1) Renal injury with proteinuria, casts, decreased glomerular filtration rate, azotemia 2) Vestibular damage with vertigo 3) Cochlear damage with hearing loss	Incidence (?) 1) Eosinophilia 2) skin rash 3) fever 4) anaphylaxis (rare)	Baseline and monthly urinalyses BUN and audiogram.

APPENDIX 3

FORMS USED IN STATE TUBERCULOSIS CLINICS

HTC-4000 (Rev. 3/67) – DAILY RECORD OF CLINIC PROCEDURES

In order to insure that current and complete information on all clinic patients is received by both the area case register and the Division of Chronic Respiratory Diseases, it is essential that the daily record of clinic procedures be completed as outlined below:

Columns 1 – 7 These are self explanatory

Column 8 – Check for each new clinic admission. If patient was previously a clinic patient, was discharged and then readmitted, the letters Re should be inserted.

Column 9 – Check for all visits except those checked under column 8.

Column 10 – This is to be completed using the coding symbols listed under "Disease Class" on the reverse side of Form HTC-4000. If the diagnosis is disease due to atypical mycobacteria, the coding symbol under "Disease Class" (e.g., M.A.) is to be followed by a coding symbol as listed under "Infection with other mycobacteria" (Example MA-III.) When changes in diagnosis are made by the clinician these changes should be recorded in the proper columns.

Column 11 – This is to be completed using the coding symbols on the reverse side of Form HTC-4000. Any change in activity is to be recorded.

Column 12 – Check only for newly diagnosed cases of tuberculosis or disease due to atypical mycobacteria.

Column 13 – This is to be completed using the coding symbols on the reverse side of Form HTC-4000.

Column 14 – Record induration in millimeters.

Column 15 – Check when patient receives 14 x 17 X-ray.

Column 16 – Check when patient receives other X-ray studies.

Columns 17 & 18 Bacteriologic results on all specimens submitted including gastric specimens, urine specimens or specimens submitted from any other site are to be recorded in these columns. Record "S" for smear and "C" for culture in the appropriate columns. Do not record the number of tests. If laboratory report indicates a culture positive for atypical mycobacteria the coding symbols listed under "Infection with Atypical Mycobacteria" should also be inserted. Example – C-III.

Column 19 - When drug susceptibility studies are reported by the laboratory, they should be recorded as follows: If the report indicates the organisms are sensitive to two or more primary drugs (INH, PAS and Streptomycin) in all concentrations the symbol "S" should be inserted. If the report indicates the organisms are resistant to two or more primary drugs in any concentration the symbol "R" should be inserted.

Example l Laboratory Report

Sensitive	Resistant
INH 1 and 5 mcg/ml	PAS 10 mcg/ml
PAS 100 mcg/ml	
Streptomycin 10 & 100 mcg/ml	

As reported above, the organism is sensitive to INH and Streptomycin in both concentrations; thus, the symbol "S" should be recorded in Column 19.

Example 2

Sensitive	Resistant
Streptomycin 10 & 100 mcg/ml	INH 1 & 5 mcg/ml
PAS 100 mcg/ml	PAS 10 mcg/ml

As reported the organism is resistant to INH in both concentrations and PAS in the weaker concentration; the symbol "R" should be recorded in column 19.

Column 20 - Record other tests such as CBC, SGOT, BUN, etc.

Column 21 - Complete this column using the coding symbols as listed on the reverse side of the Form HTC-4000. Patients reporting for drugs on other than clinic days or receiving drugs at home should be listed in columns 1 and 2, checked in column 8 or 9. The names of the drugs are to be entered in column 21 each time they are ordered or reviewed. If the drug regimen is not reviewed when the patient is seen in clinic, enter a check in this column. This will indicate that the same drugs are being continued and will enable the Registry Clerk to determine the present status of the patient's medication. When drug-therapy is discontinued, enter a "D" and the date in the drug column.

Column 22 - Record total daily dose of drug - Example:

Column

21	22
INH	300
PAS	12

Column 23 - 31 These are self explanatory.

This form is to be completed in duplicate each month. The original sent to the Division of Chronic Respiratory Diseases. The copy will be forwarded to the proper case register by the 15th of each month where the information will be transferred to the register card. Form HTC-4000 will then be returned to the clinic for filing.

HTC-4103 – ALL NEWLY DIAGNOSED PATIENTS ADDED THIS MONTH FROM ALL SOURCES

This daily log is kept by the clinic clerk. Each month a typed copy is submitted to the Division of Chronic Respiratory Diseases.

HTC-4404 – APPLICATION FOR HOSPITAL TREATMENT

Two copies of this form should be completed for each person to be admitted to a State tuberculosis hospital. These are sent to the Division of Chronic Respiratory Diseases either prior to admission or, in special instances, as soon thereafter as possible.

HTC-4406 – ENTRANT'S HISTORY AND CURRENT EXAMINATION RECORD

A single copy of this form is to be completed for every patient admitted to the clinic. This is to be retained in the patient's chart. Subsequent examinations are to be recorded on Form HTC-4410, "Record of Clinic Visit."

HTC-4408 – MONTHLY REPORT

This form is to be typed in quadruplicate. An original and two copies are sent to the Division of Chronic Respiratory Diseases no later than the fifteenth of each month. One copy is retained by the clinic. The two copies sent to the Division are used to inform the Regional Medical Director of clinic activities and to notify the reporting clinic of any corrections made in the data.

All items are to be completed using the information recorded on Form HTC-4000 or from the previous monthly report.

All column numbers refer to Form HTC-4000 Rev. 5/67.

Item 1 – Number reported in Item 6 of previous monthly report.

Item 2 – Total recorded under column 12

Item 2A – E – Obtain from columns 10 & 11 for each newly diagnosed case.

Item 3 – All new entrants checked in column 10 as DP or NTB

Item 4 – Total of items 1, 2 and 3

Item 5 – Total of columns 31 and 32

Item 6 – Item 4 less Item 5

Item 6A – Sum of Item 6A from previous month and Item 2 of present month activity status is obtained from column 11

Item 6B – Item 6 less Item 6–A

Item 7 – Totals of columns 8 and 9

Item 8 – Number of days clinic was held during month

Item 9A – Total of patients listed in column 10 having a diagnosis of tuberculosis who are also listed under column 21 as receiving drugs.

Item 9B – Total of patients listed in column 10 having no diagnosis of tuberculosis who are also listed under column 21 as receiving INH alone.

Item 10 – Total recorded under column 13

Item 11A – Total recorded under column 15

Item 11B – Total recorded under column 16

Item 12A – Total recorded under column 17

Item 12B – Total recorded under column 19

HTC-4410 – RECORD OF CLINIC VISIT

Entries are made on this form for each clinic visit. It serves as both a progress sheet and an order sheet. The clinician must sign or initial his notes for each visit. In the columns for orders the clinician must specify the drug and dosage, when the patient is to get his next X-ray, when he is to have his next sputum examination and when he is to return for evaluation. Any change in diagnosis is to be recorded under current diagnosis. This form is to be kept in the patient's chart at all times.

HTC-4424 – INDEX CARD

The front of this card is to be completed for each patient upon his admission to clinic. It is retained by the clinic until the patient is discharged. At the time of discharge a second index card is completed and the discharge summary on the reverse side of both cards is filled out. One card is retained by the clinic and one card is forwarded to the Division of Chronic Respiratory Diseases.

HTC-4434 – TUBERCULOSIS MORBIDITY REPORT CARD

This card is to be completed and forwarded to the Division of Chronic Respiratory Diseases for all newly diagnosed cases of tuberculosis whose legal residence is within Pennsylvania. The name of the State clinician, private physician or hospital making the initial diagnosis is to be entered on the appropriate line.

HTC-4443 – PATIENT TUBERCULOSIS REGISTER CARD

This is completed by the case register clerk and retained at the register. For detailed information on the completion of this card see manual for tuberculosis case registers.

HTC-4448 – RECOMMENDATION FOR OUT-PATIENT CHEMOTHERAPY TREATMENT.

This form is completed in duplicate by the hospital at the time of the patient's discharge. One copy is mailed to the clinic and one is kept by the hospital.

HTC-4454 – AUTHORIZATION FOR ADMISSION OF PATIENT

This card is completed by the clinic nurse or clerk for all patients being admitted to State tuberculosis hospitals. The patient takes the completed card to the hospital on the day of admission.

HTC-4460 – RECORD OF TUBERCULIN SENSITIVITY

This form is to be completed by the nurse or clinic clerk for every patient who receives a tuberculin test in the clinic. Results of each tuberculin test and disposition are to be checked on the reverse side. The card is to be retained in a separate file in the clinic.

HTC-4461 – TUBERCULOSIS INFORMATION INTERCHANGE

This form is used to

1. transmit information from the tuberculosis case register to private physicians.
2. request from private physicians, information concerning tuberculosis patients.

To transmit information to private physicians, the form is completed by the register clerk using the most recent information and sent to the appropriate clinic for the review and signature of the clinician. The completed and signed form is forwarded by the clinic to the private physician concerned. A letter of explanation which also is to be signed by the clinician is to be enclosed. This is to be sent to notify the private physician of any of the following: change in drug regimen; change in activity status; results of initial evaluation.

To request information from a private physician, the register clerk completes the identifying data on the upper part of the form. The box relating to the information desired is checked. The form is sent with a letter of explanation signed by the register clerk to the private physician concerned. The information is to be requested at six month intervals. This may be either at intervals of six months from the date of report or every April and November.

HTC-4464 – CHEMOTHERAPY RECORD

This serves as a complete record of all drugs prescribed during the course of a patient's disease. This includes both hospital and clinic drug regimens. It is not to be used for listing the amount of medication dispensed. This record is to be retained on the patient's chart.

HTC-4465 – ISONIAZID PROPHYLAXIS PROGRAM

This is to be completed in quadruplicate. One copy is sent to the Division of Chronic Respiratory Diseases prior to therapy, and at 6 months, 12 months and 24 months following the beginning of prophylaxis.

HTC-4469 – AUTHORIZATION FOR CHEST X-RAY

This form is completed for all patients who are to obtain a 14" x 17" chest X-ray.

HTC-4475 – TUBERCULOSIS CASE OR TUBERCULIN REACTOR EPIDEMIOLOGIC CONTROL RECORD.

HTC-4476 – TUBERCULOSIS EPIDEMIOLOGIC REPORT

The above two forms are used only in selected areas of the Commonwealth. As they come into general use, directions for their completion will be supplied.

HTC-4483 – RESULTS OF X-RAY CASEFINDING PROGRAM

This is to be completed by the tuberculosis and health society conducting the survey.

HBS-2300 – SOCIAL HISTORY

To be completed as indicated on the reverse side of form.

HBS-2318 – CLINIC APPOINTMENT CARD

This card is arranged by month for each day a clinic is to be held. It lists appointment schedules for one year in advance. It is completed by the clinic clerk after each clinic session.

HBS-2324 – APPOINTMENT CARD

This card is completed by the clinic clerk and mailed a week in advance of each clinic appointment.

HBS-2779 – AUTHORIZATION FOR RELEASE OF INFORMATION BY HOSPITALS AND CLINICS

This form is completed, signed by the patient and witnessed when a request for medical information is received from an authorized source.

HBS-3362 Rev. 12/66 – CLINICAL LABORATORY REPORT

These reports are to be completed as indicated by the Clinic Clerk or nurse and accompany each specimen sent to the State laboratory.

HBN-11018 – TUBERCULOSIS SERVICE SHEET

Completed as indicated by the Bureau of Nursing

Clinic patient records should be kept until one of the following occurs:

1. Notification is received of the patient's death
2. The patient, according to his records, has reached the age of 70 and no new information has been recorded on the chart during the past five years.

Medical records include:

- HTC-4406
- HTC-4410
- HTC-4448
- HTC-4464
- HTC-4469
- HBS-2300
- HBS-2324
- HBS-3362

All chest X-rays with the exception of the most recent film may be destroyed if there has been no new information recorded on the patient's chart during the past five years. The single most recent film should be retained until it is definitely known that the patient is deceased.

Form HTC-4000, Daily Report of Clinic Procedures and HTC-4408, Monthly Report may be destroyed after one year.

The patient's index card with the discharge summary on the reverse side is retained by the clinic as a permanent record.

June, 1967

APPENDIX 4

STATE TUBERCULOSIS CLINICS BY REGION AND COUNTY

REGION I

No.	City and Zip Code		Clinicians
		Columbia County	
127 Phone	Berwick 18603 (717) 752-4551	Berwick Hospital Fri. 10:00-12:00 Noon	Ali A. Alley, M.D.
		Lackawanna County	
84 Phone	Carbondale 18407 (717) 282-2871	First National Bank Bldg. Rooms 315-316, 41 N. Main St. Tues. 1:00–4:00 p.m.	R. J. Touch, M.D.
40 Phone	*Scranton 18503 (717) 347-2008	Chamber of Commerce Bldg. Mulberry & N. Washington Ave. Mon., Wed., & Fri. 1:00-4:00 p.m.	Carl A. Tobias, M.D. Joseph N. Marino, M.D.
		Luzerne County	
68 Phone	Hazleton 18201 (717) 454-7741	City Hall Tues. 1:00-3:00 p.m.	Dominic De Angelo, M.D.
94 Phone	Pittston 18640 (717) 654-4111	48-50 S. Main St. Thurs. 1:00-3:00 p.m.	Martin J. Walsh, M.D.
1 Phone	Wilkes-Barre 18701 (717) 823-0108 823-0109	71 North Franklin St. Mon. & Thurs. 2:00-5:00 p.m.	Albina Cavan, M.D. Donald C. Smith, M.D. Russell E. James, M.D.
		Monroe County	
65 Phone	Stroudsburg 18360 (717) 421-2130	519 Sarah St. 2nd & 4th Tues., 10:00-12:00 Noon	Harvey Pullen, M.D.
		Susquehanna County	
97 Phone	Susquehanna 18847 (717) 853-4870	Barnes Memorial Hospital 2nd Tues. 3:00-5:00 p.m.	Raymond C. Davis, M.D.
		Wayne County	
18 Phone	Honesdale 18431 (717) 253-3730	Yuba Office Bldg. 100 4th St., 2nd Floor Wed., 10:00-12:00 Noon	Richard A. Porter, M.D.

*Scranton Mailing Address: P. O. Box 269, Scranton, Pennsylvania 18503

No.	City and Zip Code	Wyoming County	Clinicians
56	Tunkhannock 18657	2½ Tioga St.	A. B. Davenport, M.D.
Phone	(717) 836-2981	1st. Fri. 2:00-4:00 p.m.	

REGION II

		Bradford County	
44	Sayre 18840	Robert Packer Hospital	Ralph B. Winston, M.D.
Phone	(717) 883-9251	1st. & 2nd Wed. 2:00-5:00 p.m.	
		Centre County	
123	Bellefonte 16823	110 S. School St.	John H. Light, M.D.
Phone	(814) 355-5438	1st. & 3rd. Fri. 10:00-12:00 Noon	
80	Philipsburg 16866	11 W. Pine St.	William D. Harvey, M.D.
Phone	(814) 342-4840	1st. & 4th. Wed. 9:00-12:00 Noon	
		Clearfield County	
62	Clearfield 16830	105 N. Second St.	Thomas G. Bell, M.D.
Phone	(814) 765-4152	2nd. & 4th. Tues. 10:00-12:00 Noon	
95	DuBois 15801	22 E. Scribner Ave.	Howard Fugate, M.D.
Phone	(814) 371-8890	1st. & 3rd. Wed. 1:00-3:00 p.m.	
		Clinton County	
46	Lock Haven 17745	204 W. Main St., P. O. Box 630	John H. Moore, M.D.
Phone	(717) 748-2901	2nd. & 4th. Fri. 9:00-12:00 Noon	
		Elk County	
116	Ridgway 15823	110 Lincoln St.	William W. Thompson, M.D.
Phone	(814) 773-4302	Every Other Fri. 10:00-12:00 Noon	
		Lycoming County	
33	Williamsport 17701	224 East Fourth St.	Matthew M. Mansuy, M.D. David L. McMorris, M.D.
Phone	(717) 326-9133	Wed. 9:00-12:00 Noon	

No.	City and Zip Code	McKean County	Clinicians
104 Phone	Bradford 16701 (814) 362-2203 362-2133	200 Pleasant St. Wed. & Fri. 9:00-12:00 Noon	Edward J. Roche, Jr., M.D.
115 Phone	Kane 16735 (814) 837-7680	217 Chase St. Tues. 3:00-5:00 p.m.	M. E. McCarthy, M.D.
		Potter County	
128 Phone	Coudersport 16915 (814) 274-8270	353 E. Second St. 2nd. & 4th. Thurs. 2:00-4:00 p.m.	Alfred F. Domaleski, M.D.
		Tioga County	
58 Phone	Wellsboro 16901 (717) 724-1649	14½ Main St. 1st. & 3rd. Fri. 10:00-12:00 Noon	William S. Butler, M.D.

REGION III

		Armstrong County	
24 Phone	Kittanning 16201 (412) 545-5201 545-8911	Court House, Room 303 Market St. Mon. 10:00-12:00 Noon	Cyrus B. Slease, M.D.
		Beaver County	
22 Phone	Rochester 15074 (412) 775-0098	487 Hull St., P. O. Box 110 Tues. 3:00-5:00 p.m. Fri. 2:00-5:00 p.m.	Ruth W. Wilson, M.D. Nicholas H. Krayer, M.D.
		Butler County	
15 Phone	Butler 16001 (412) 287-1769	V. A. Hospital P. O. Box 94, Bldg. 79 Mon. 3:00-5:00 p.m.	J. A. Llewellyn, M.D.
		Clarion County	
43 Phone	Clarion 16214 (814) 226-7180	708 Main St. 1st. Wed. 10:00-12:00 Noon	Edward J. Keeling, M.D.
		Crawford County	
41 Phone	Meadville 16335 (814) 337-1208	160 S. Park Ave. Plaza Mon. 3:00-5:00 p.m.	Hendrik DeKruif, M.D.

No.	City and Zip Code		Clinicians
		Erie County	
(All Tuberculosis Clinics in Erie County are Operated by Erie County Department of Health)			
 Phone	Erie 16502 (814) 866-5191	4728 Lake Pleasant Road	Felix S. Shubert, M.D. Deputy Director Erie County Dept. of Health
		Indiana County	
48 Phone	Indiana 15701 (412) 463-8596 463-8597	125 N. Fifth St. Wed. 9:00-11:30 a.m.	Daniel H. Bee, M.D.
		Jefferson County	
64 Phone	Punxsutawney 15767 (814) 938-6630	Masonic Bldg., N. Jefferson St. 2nd. & 4th. Tues. 9:00-11:00 a.m.	Lewis R. McCauley, M.D.
		Lawrence County	
35 Phone	New Castle 16101 (412) 658-6696 658-6697	Centennial Bldg., 4th. Floor 7 S. Mill St. Tues. 10:00-12:00 Noon	Wilbur E. Flannery, M.D.
		Mercer County	
36 Phone	Sharon 16146 (412) 347-4500 347-4509	479 E. State St. Tues. 3:00-5:00 p.m.	Robert E. Sass, M.D.
		Venango County	
72 Phone	Franklin 16323 (814) 432-8618	409 Trust Company Bldg. 1243 Liberty St. Fri. 1:00-2:00 p.m.	James D. Curry, M.D.
32 Phone	Oil City 16301 (814) 649-1216	301 Duncomb St. Thurs. 2:00-4:00 p.m.	T. S. Gabreski, M.D.
		Warren County	
54 Phone	Warren 16365 (814) 723-4870	104 Water St., P. O. Box 782 Wed. 1:00-3:00 p.m.	Karl J. Fritz, Jr., M.D.

REGION IV

No.	City and Zip Code	Allegheny County	Clinicians
		(All Tuberculosis Clinics in Allegheny County are Operated by Allegheny County Department of Health)	
 Phone	Pittsburgh 15219 (412) 281-4900	620 City-County Bldg.	Frank B. Clack, V.M.D. Acting Administrator Allegheny County Health Dept. Harold H. Cashman, M.D. Tuberculosis Control
		Fayette County	
70 Phone	Connellsville 15425 (412) 628-2250	132 S. Arch Street Tues. 10:00-12:00 Noon	Fred L. Norton, M.D.
67 Phone	Uniontown 15401 (412) 437-9881 437-9882	Uniontown Hospital Thurs. 8:30-12:30 p.m.	O. S. Kough, M.D.
		Greene County	
63 Phone	Waynesburg 15370 (412) 627-3168	Democrat Messenger Bldg. 32 Church St. Tues. 9:00-10:30 a.m.	William B. Clendenning, M.D.
		Somerset County	
73 Phone	Somerset 15501 (814) 445-7981	116 W. Patriot Street Fri. 8:30-10:00 a.m.	Edward Stachowiak, M.D.
		Washington County	
129 Phone	Charleroi 15023 (412) 483-2737	2nd St. & Fallowfield Ave. Wed., 11:00-1:00 p.m.	Walter F. Rongaus, M.D.
105 Phone	Washington 15301 (412) 222-2620	364 Meadow Ave. Tues., 2:00-4:00 p.m.	Joseph L. Bryant, M.D.
		Westmoreland County	
57 Phone	Greensburg 15601 (412) 834-9310 834-9311	115 W. Otterman St. Fri. 8:30-12:30 p.m.	William E. Bierer, M.D.
131 Phone	New Kensington 15068 (412) 337-6621	4th Floor, Mellon Bank Bldg. Fifth Ave. & 9th St. 1st & 4th Tues. 2:00-5:00 p.m.	Karl V. Hohman, M.D.

REGION V

No.	City and Zip Code	**Adams County**	Clinicians
60	Gettysburg 17325	103 W. Middle St.	C. G. Crist, M.D.
Phone	(717) 334-2112	Mon. 2:00-4:00 p.m.	
		Bedford County	
61	Bedford 15522	130 W. Penn St.	E. A. Shields, M.D.
Phone	(814) 623-5418	Wed. 3:00-5:00 p.m.	
		Blair County	
14	Altoona 16601	2506 Broad Ave.	R. V. Silknetter, M.D.
Phone	(814) 944-0982 944-7978	Thurs. 2:00-4:00 p.m.	
		Cambria County	
9	Johnstown 15901	Conemaugh Valley Memorial Hosp.	Robert Gvozden, M.D.
Phone	(814) 539-9676	Tues. & Fri. 9:30-11:30 a.m.	
69	Spangler 15775	Miner's Hospital, Nurses Bldg.	Morton J. Earley, M.D.
Phone	(814) 948-8151	Tues. 3:00-5:00 p.m. Fri. 10:00-11:00 a.m.	
		Cumberland County	
133	Carlisle 17013	Carlisle Hospital	William C. Taft, M.D.
Phone	(717) 243-5151	Wed. 8:00-10:00 a.m.	
		Franklin County	
11	Chambersburg 17201	Chambersburg Hospital	Herman A. Gilda, M.D.
Phone	(717) 263-4143	Fri. 10:00-12:00 Noon	
108	Waynesboro 17268	131 E. Main St.	John P. Manges, M.D.
Phone	(717) 762-4715	2nd & 4th Tues., 1:30-3:30 p.m.	
		Huntingdon County	
47	Huntingdon 16652	413 Church St.	Philip F. Dunn, M.D.
Phone	(814) 643-3700	Tues. 2:00-5:00	
		Juniata County	
26	Mifflintown 17059	Juniata Valley National Bank Bldg.	Charles Z. Yoder, M.D.
Phone	(717) 436-4020	2nd. Wed. 2:00-4:00 p.m.	

No.	City and Zip Code	Mifflin County	Clinicians
10 Phone	Lewistown 17044 (717) 248-9671	133 E. Market St. Tues. 9:00-11:00 a.m.	Harry W. Gardner, M.D. A. Reid Leopold, M.D.
		York County	
2 Phone	York 17404 (717) 843-8049	140 Roosevelt Ave. Mon. 2:30-5:00 p.m. Wed. 2:30-5:00 p.m.	H. Malcolm Read, M.D. Richard E. Small, M.D.

REGION VI

		Berks County	
37 Phone	Reading 19601 (215) 777-7865	300 Kenhorst Blvd. Mon. 1:00-4:00 p.m.	John H. Bisbing, M.D. R. William Alexander, M.D. William A. Weyman, M.D.
		Carbon County	
89 Phone	Lansford 18232 (717) 645-5254	209 E. Bertsch St. Wed. 1:00-4:00 p.m.	Albert N. Redelin, M.D.
		Dauphin County	
13 Phone	Harrisburg 17120 (717) 234-2421	1105 Herr St. Mon., Wed., & Fri. 1:00-3:00 p.m.	G. Leonard Oxley, M.D.
		Lancaster County	
39 Phone	Lancaster 17604 (717) 393-0017	118 W. Chestnut St. Mon. & Wed. 2:30-4:30 p.m. Fri. 9:00-11:00 a.m.	M. K. Spillman, M.D.
		Lebanon County	
5 Phone	Lebanon 17042 (717) 272-2044	Room 404, Municipal Bldg. 400 S. Eighth St. Mon. 1:00-4:00 p.m.	J. R. Monteith, M.D.
		Lehigh County	
106 Phone	*Allentown 18102 (215) 437-4351	Sacred Heart Hospital Mon. 2:00-5:00 p.m.	Martin W. Brossman, M.D.
98 Phone	*Bethlehem 18015 (215) 867-7836	St. Luke's Hospital Wed. 3:00-5:00 p.m.	Joseph E. Bartos, M.D. Wilfred E. Vogler, M.D.

No.	City and Zip Code	Montour County	Clinicians
28 Phone	Danville 17821 (717) 275-1161	415 Mill St. 1st & 3rd Mon. 8:00-10:00 a.m.	C. A. Laubach, Jr., M.D.
		Northampton County	
52 Phone	*Easton 18042 (215) 258-2919	130 S. Fourth St. Wed. 9:00-12:00 Noon	Carl Gaines, M.D.
		Northumberland County	
53 Phone	**Shamokin (717) 644-0321	Shamokin State Hospital Mon. 12:30-2:30 p.m.	Philip C. Hopewell, M.D. (Acting)
110 Phone	Sunbury 17801 (717) 286-4580 286-4589	49 Catawissa Ave., P. O. Box 743 Wed. 9:00-12:00 Noon	Daniel Solomon, M.D.
		Schuylkill County	
66 Phone	Pottsville 17901 (717) 622-6880 622-6883	433 S. Centre St. Tues. & Thurs. 10:00-12:00 Noon	Alfred J. Land, M.D.
85 Phone	Shenandoah 17976 (717) 462-1250	114 N. West St. Wed. 3:00-5:00 p.m. Fri. 9:00-11:00 a.m.	R. C. Moyer, M.D.

* These clinics are under the jurisdiction of the Allentown-Bethlehem Health Department, Allentown, Bethlehem, Easton Mailing Address: Lehigh-Northampton Health Center, 520 E. Broad St., Bethlehem 18018

** Shamokin Mailing Address: 519 N. Rock St., P. O. Box 104, Shamokin 17872
Phone: 648-7241

REGION VII

Bucks County

(All Tuberculosis Clinics in Bucks County are Operated by Bucks County Department of Health)

Phone	Doylestown 18901 (215) 348-2911	50 N. Main St.	Bucks County Dept. of Health Edmund K. Lindemuth, M.D. Deputy Director

No.	City and Zip Code	Chester County	Clinicians
75 Phone	Coatesville 19320 (215) 384-2150	Coatesville Hospital 300 Strode Ave. Wed. 1:00-4:00 p.m.	Norman D. MacKenzie, M.D.
130 Phone	Phoenixville 19460 (215) 933-3744	Phoenixville Hospital Tues. 9:00-11:00 a.m.	Dale L. Kenmerer, M.D.
6 Phone	West Chester 19380 (215) 696-3667	Chester County Hospital Mon. 1:00-4:00 p.m.	Norman D. MacKenzie, M.D.
		Delaware County	
136 Phone	Chester 19013 (215) 876-0306 876-0307	919 Barclay St. Mon. & Fri. 12:30-4:30 p.m. Wed. 1:00-4:00 p.m.	Robert H. Johnston, M.D. John Hurst, M.D.
120 Phone	Darby 19023 (215) 532-2446	1018 Main St. Mon., Wed., & Fri. 1:00-4:00 p.m.	H. A. Stecher, M.D.
		Montgomery County	
16 Phone	Abington 19001 (215) 887-2448	Abington Memorial Hospital Fri. 10:30-12:30 p.m. Mon. 9:30-12:30 p.m.	Richard T. Ellison, M.D.
117 Phone	Bryn Mawr 19010 (215) 525-3458	9 Bryn Mawr Ave. Mon. 10:00-12:00 Noon	Edward A. Theurkauf, M.D.
31 Phone	Norristown 19401 (215) 272-3756	750 E. Johnson Highway Tues. & Fri. 1:00-4:00 p.m.	Samuel F. Cohen, M.D.
122 Phone	Pottstown 19464 (215) 326-2666	Pottstown Memorial Medical Center – North, 724 N. Charlotte St. Mon. 1:00-4:00 p.m.	S. M. Nowacki, M.D.
		Philadelphia County	
(All Tuberculosis Clinics in Philadelphia County are Operated by Philadelphia City Health Dept.)			
Phone	Philadelphia 19146 (215) 686-5011 686-5125	500 South Broad St.	Lewis D. Polk, M.D. Deputy Commissioner Community Health Services Samuel C. Stein, M.D.. Chief Tuberculosis Control Section

APPENDIX 5

SECONDARY DRUG CLINICS

REGION I

No.	City and Zip Code	County	Clinicians
		Luzerne County	
1	Wilkes-Barre 18701	71 North Franklin St. Mon. & Thurs. 2:00-5:00 p.m.	Donald C. Smith, M.D.

REGION VI

No.	City and Zip Code	County	Clinicians
		Northumberland County	
53	*Shamokin	Shamokin State Hospital Mon. 12:30-2:30 p.m.	Philip C. Hopewell, M.D.

REGION VII

No.	City and Zip Code	County	Clinicians
		Philadelphia County	
	Philadelphia	Henry R. Landis State Hospital By Appointment	Robert F. Johnston, M.D.

* Shamokin Mailing Address: 519 N. Rock St., P. O. Box 104, Shamokin 17872

APPENDIX 6

TUBERCULOSIS CASE REGISTERS BY REGION AND COUNTY

CASE REGISTERS	CLINICS SERVED	
Region I		
Wilkes-Barre 71 N. Franklin St.	Luzerne County:	Wilkes-Barre Hazleton Pittston
Scranton Chamber of Commerce Bldg. Mulberry & N. Washington Ave.	Lackawanna County:	Scranton Carbondale
	Columbia County:	Berwick
	Monroe County:	Stroudsburg
	Susquehanna County:	Susquehanna
	Wayne County:	Honesdale
	Wyoming County:	Tunkhannock
Region IV		
Uniontown 95 W. Fayette St.	Fayette County:	Uniontown Connellsville
	Washington County:	Charleroi Washington
Greensburg 115 W. Otterman St.	Westmoreland County:	Greensburg New Kensington
Region V		
Carlisle Carlisle Hospital	Cumberland County:	Carlisle
	Franklin County:	Chambersburg Waynesboro
York 140 Roosevelt Ave.	York County:	York
	Adams County:	Gettysburg
Region VI		
Reading 300 Kenhorst Blvd.	Berks County:	Reading
Harrisburg 1105 Herr St.	Dauphin County:	Harrisburg

APPENDIX 6

TUBERCULOSIS CASE REGISTERS BY REGION AND COUNTY

CASE REGISTERS	CLINICS SERVED	
Region VI (Continued)		
Lancaster 118 W. Chestnut St.	Lancaster County:	Lancaster
Sunbury 49 Catawissa Ave.	Northumberland County:	Shamokin Sunbury
	Montour County:	Danville
Pottsville 433 S. Centre St.	Schuylkill County:	Pottsville Shenandoah
Region VII		
West Chester 6 S. Church St.	Chester County:	Coatesville Phoenixville West Chester
Chester 919 Barclay St.	Delaware County:	Chester Darby
Norristown 750 E. Johnson Highway	Montgomery County:	Abington Bryn Mawr Norristown Pottstown

APPENDIX 7

DRUG LIST FOR STATE TUBERCULOSIS CLINICS

The specific drugs available from the Procurement Section, Department of Health, Harrisburg, Pennsylvania, for out-patients at State tuberculosis clinics are as follows:

(1) Isoniazid (INH), 50 mg. tablets, 100 tablets per bottle. Stock No. 747

Isoniazid (INH), 100 mg. tablets, 100 tablets per bottle. Stock No. 747.1

(2) PAS-C (Pascorbic) 0.5 gm. tablets, 500 tablets per bottle.

(3) Neopasalate, equivalent to Sodium PAS, 0.5 gm. tablets, 360 tablets per bottle. Stock No. 996

(4) Neopasalate, equivalent to Sodium PAS, 1.0 gm. tablets, 180 tablets per bottle. Stock No. 997

(5) Potassium Para-aminosalicylate (Paskalium), 0.5 gm. tablets, 360 tablets per bottle. Stock No. 1089.2

(6) Streptomycin Sulfate Solution, 1 gm. in sterile disposable units with needle attached, 50 units per box. Stock No. 1391.5

(7) Pyridoxine Hydrochloride, 25 mg. tablets, 100 tablets per bottle. Stock No. 1150.1

(8) Pasna Tri Pack 300. Three daily (one t.i.d.) Provide the following: 15 gm. of Pasna Granules, 300 mg. Isoniazid, 30 mg. Pyridoxine HCL. Stock No. 1091. Supply limited to patients who cannot tolerate other forms of PAS.

(9) Neopasalate K. For patients on sodium restricted diets. 0.5 tablets, 1000 tablets per bottle. Available on special order only by request to Director of Division of Chronic Respiratory Diseases.

(10) Epinephrine Injection 1:1000, 1 cc. ampules. Stock No. 43.1

(11) Neopasalate Chocolate Powder, 1 lb. jars. Limited Supply through Director of Chronic Respiratory Diseases

* (12) Tuberculin P.P.D., First Strength, Ten tests per package.

* (13) Tuberculin P.P.D., Intermediate Strength, Ten tests per package.

* (14) Tuberculin P.P.D., Intermediate Strength. Fifty tests per package.

* (15) Coccidiodin, 1 vial, 1/10 dilution. 10 doses.
1 vial, 1/100 dilution. 10 doses.

* (16) Blastomycin, 1 pkg. (10 Package unit) 10 doses.

* (17) Histoplasmin, 1 pkg. (10 Package unit) 10 doses.

DRUG LIST FOR STATE TUBERCULOSIS CLINICS (Continued)

(18) Disposable Tuberculin Syringes with Needles, 1 cc. 26G. 3/8". Stock No. 1453.3

(19) Water Distilled, 10 cc. amp. type A. Stock No. 1652

Requisitions submitted for the above listed items must reach the Division of Chronic Respiratory Diseases in an original and three copies.

* A separate requisition must be submitted for Tuberculin P.P.D. See Office Procedure Manual, Section IV, page 1, paragraph A, 3.

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